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SMALL-SCALE PROPELLER PERFORMANCE AT LOW SPEEDS

BY

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THESIS

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Abstract

Very little research has been performed that investigates the performance characteristics of small-scale propellers. As a result, design and prediction capabilities for such propellers are currently incomplete. In order to address this, an experiment was developed to acquire performance data for small-scale propellers in the UIUC low speed wind tunnel. This thesis documents the design and implementation of these tests, presents the performance data for 79 different propellers, and offers some preliminary analysis of the data. It is shown that the tests produce high-fidelity data. The preliminary analysis shows that there are a myriad of interesting trends that warrant further study.

This work is dedicated to my family and friends.

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Nomenclature

Symbols

a	over-relaxation parameter
A	disk area of propeller
c	propeller chord length
C	cross-sectional area of wind tunnel
C_P	power coefficient ($= P/\rho n^3 D^5$)
C_T	thrust coefficient ($= T/\rho n^2 D^4$)
D	propeller diameter
J	advance ratio ($= V/n D$)
K_1	wind tunnel correction parameter
k	helix pitch
n	rotational speed (revs/sec)
P	power
P_{atm}	atmospheric pressure
q	dynamic pressure
Q	torque
R	propeller radius or ideal gas constant for air
T	thrust
T_{air}	air temperature

u	x -component of velocity
v	y -component of velocity
V	velocity
\overline{V}	volume
w	z -component of velocity
α_1	wind tunnel correction parameter
β	propeller twist angle
η	efficiency
ρ	air density
τ_1	wind tunnel correction parameter
τ_4	wind tunnel correction parameter
Γ	vortex strength
Λ	flow angle, measured from streamwise direction
Ω	rotational speed (RPM)

Abbreviations

GUI	Graphical User Interface
HPF	High Pass Filter
NIST	National Institute of Standards and Technology
UAV	Unmanned Air Vehicle
UIUC	University of Illinois at Urbana-Champaign

Chapter 1

Introduction

The full-scale propeller, typically seen on general aviation aircraft, is a device that has been studied in detail. References [1]–[13] are representative of the work that has been performed since the pioneering days of aviation. These studies addressed a myriad of practical problems for propellers. The early experimental work studied the effects that airfoil selection, pitch angle, and other geometric characteristics have on propeller performance. This was followed by experiments that investigated off-design conditions that included propellers in yaw and propellers with ice accretion, amongst other things. The data from these efforts provided designers with the tools needed to maximize propeller efficiency for most applications.

One area that has not yet been investigated in-depth is the performance of small-scale propellers. It is well known that aerodynamic performance degrades at low Reynolds numbers, but the consequences that this has on propeller performance has not been studied sufficiently. Accordingly, the design methodologies used for small-scale propellers are, at best, incomplete. To develop a database for use in improving design and analysis methodologies, a test has been conducted to gather propeller performance data in the UIUC Low-Speed Wind Tunnel.

It is envisioned that the data gathered in these experiments will serve several purposes. The results will give aircraft designers a large database that can be used for selecting appropriate propellers for a wide variety of applications. Further, any beneficial or adverse trends found in the data will be used to improve design capabilities. Finally, prediction tools could

be refined using the data gathered here.

This thesis presents the results from wind-tunnel tests for a total of 79 propellers. The propellers that were tested span a variety of intended applications, including both gas and electric powered applications. Below, in Figs. 1.1–1.5, representative photographs of every style of propeller tested are given.



Figure 1.1: APC Slow-Flyer, Sport, and Thin-Electric propellers.



Figure 1.2: Graupner CAM, CAM Slim, and Super-Nylon propellers.

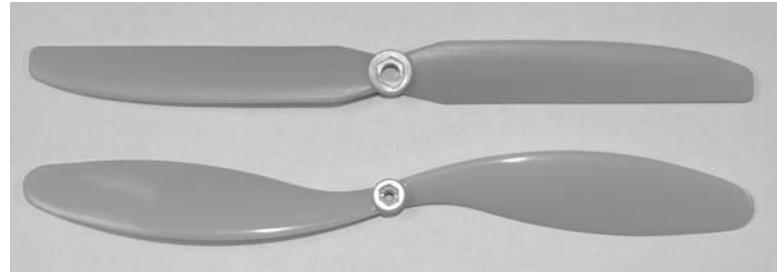


Figure 1.3: GWS Hyper-Drive, and Slow-Flyer propellers.



Figure 1.4: Kyosho propeller.



Figure 1.5: Master Airscrew Electric, G/F, and Scimitar propellers.

Chapter 2

Experimental Techniques

A large portion of the work done for this project was in the development of the test itself. The design of the test apparatus began in the Fall of 2003, the hardware and software was developed in the Winter and Spring of 2004, and the testing procedure was finalized in the Summer of 2004. In this Chapter, the wind tunnel facility is described in detail, the experimental setup is explained, and the data acquisition and reduction is discussed.

2.1 Wind Tunnel Facility

The tests presented here were performed in the UIUC subsonic wind tunnel, illustrated in Fig. 2.1. The wind tunnel is an open-return type with a 7.5:1 contraction ratio. The rectangular test section is nominally 2.8×4.0 ft (0.853×1.219 m) in cross section and 8-ft (2.438-m) long. Over the length of the test section, the width increases by approximately 0.5 in. (1.27 cm) to account for boundary-layer growth along the tunnel sidewalls. Test-section speeds are variable up to 160 mph (71.53 m/sec) via a 125-hp (93.25-kW) AC motor connected to a five-bladed fan. For the tests presented here, the maximum tunnel speed used was 80 ft/sec (24.38 m/sec). Photographs of the test section and fan are presented in Figs. 2.2 and 2.3, respectively.

In order to ensure good flow quality in the test section, the wind-tunnel settling chamber contains a 4-in. thick honeycomb in addition to four anti-turbulence screens. The turbulence

intensity has been measured to be less than 0.1% for the empty tunnel (Ref. [17]), showing that the tunnel indeed has good flow quality. The turbulence intensity for varying wind tunnel speeds was measured with hotwire anemometry. After calibrating the hotwire, the probe was placed at the centerline of the tunnel and oriented to measure the axial turbulence intensity. In order to monitor the turbulence intensity over a broad range of frequencies, 50,000 samples were acquired at 10,000 Hz. Figure 2.4 shows the turbulence intensities for the approximate range of velocities used in the present experiment with various high-pass filters applied to the signal. Assuming that the test apparatus has a minimal effect on the turbulence levels, the good flow quality will be retained.

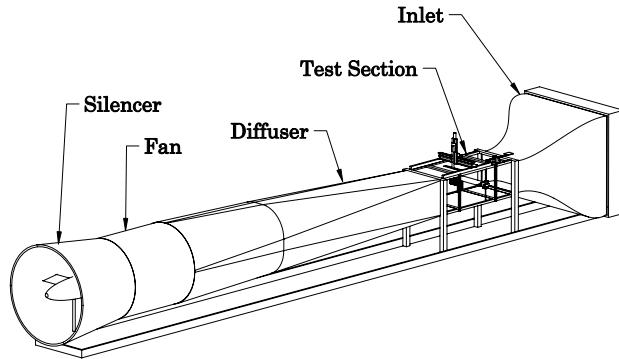


Figure 2.1: UIUC subsonic wind tunnel (Ref. [17]).



Figure 2.2: Photograph of test section with experimental rig installed.

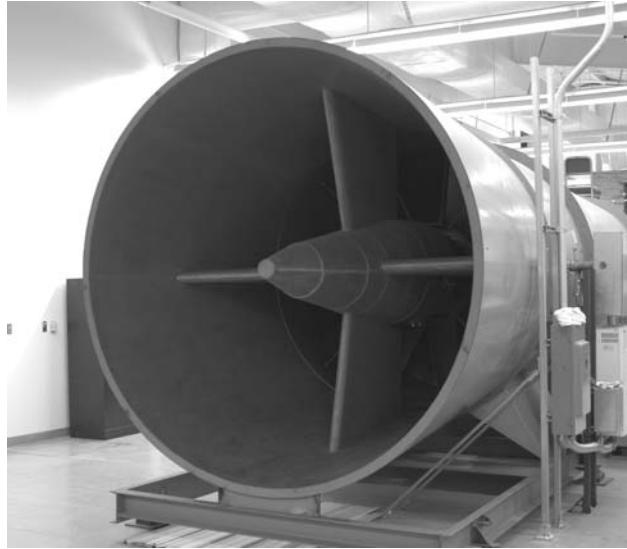


Figure 2.3: Photograph of wind tunnel fan.

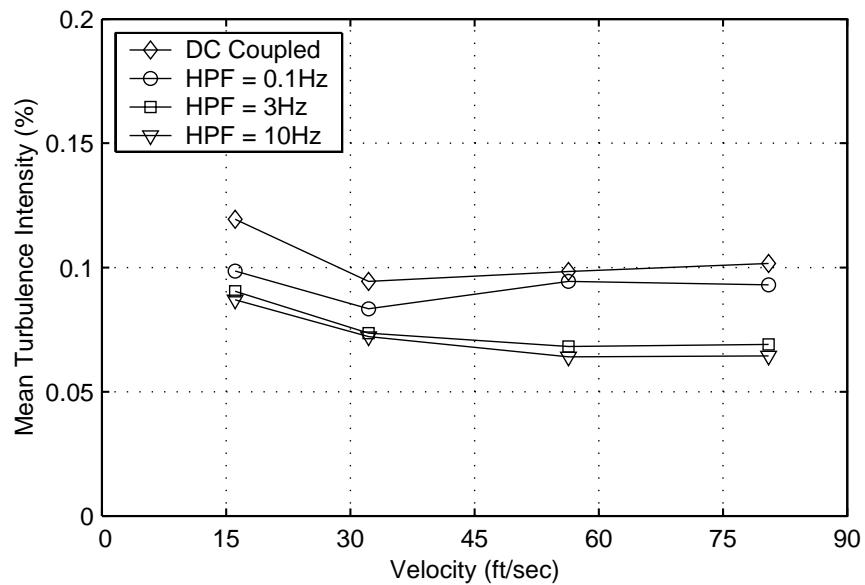


Figure 2.4: Turbulence intensity at tunnel centerline (adapted from Ref. [17]).

2.2 Experimental Setup

In order to obtain the performance characteristics, the thrust, torque, and rotational speed of the propeller all need to be measured, along with the freestream flow conditions. The ex-

perimental setup was designed to measure all of the aforementioned properties with simple mechanisms that minimize any possible influence on the measured performance characteristics. Detailed descriptions of how each of the performance and flow properties are measured are presented in Sections 2.2.1 through 2.2.4, and the miscellaneous equipment used to run the experiment is detailed in Section 2.2.5.

2.2.1 Thrust Measurement

The test apparatus is pictured in Fig. 2.5. Here, it is seen that the general design consists of a mechanism that hangs into the tunnel from atop the ceiling. With the test rig mounted to the ceiling of the tunnel, the thrust mechanism hangs into the wind tunnel like a pendulum. The thrust and torque produced by a right-handed propeller are illustrated in the Fig. 2.5.

The thrust measurement mechanism is a simple T-shaped structure that pivots about two flexural pivots and is constrained by a load cell that sits outside of the tunnel. The load cell that is used here is the Interface SM-10 having a maximum capacity of 10 lbs. To ensure that the freestream flow does not produce a drag force on the beam located inside of the tunnel, a fairing is used. The installed fairing can be seen in Fig. 2.2. Two features that were incorporated into the thrust mechanism to minimize the uncertainty in the measurements are the flexural pivots and the variable load-cell location.

The flexural pivots, made by Goodrich Aerospace, are frictionless, stiction-free bearings with negligible hysteresis that are designed for applications with limited angular travel ($\pm 30^\circ$). The pivots are made with flat, crossed springs that support rotating sleeves. These flexural pivots were chosen over standard bearings because they greatly reduce the adverse tendencies that bearings are prone to when used in static applications, namely stiction and hysteresis. The test rig was designed to use the 3/8 in. double-ended series (part number 6012-600).

The upper balance arm of the mechanism is designed to allow the load cell to be placed any of ten possible locations, which allows the balance arm to be varied from 3.75 in.

(9.53 cm) to 12.75 in. (32.39 cm), in 1 in. (2.54 cm) increments. This feature ensures that the load cell can be placed in a position such that the full range of the load cell is used for each propeller tested.



Figure 2.5: Test apparatus without fairing.

2.2.2 Torque Measurement

The torque produced by the propeller is measured using the RTS-25 and RTS-100 reaction torque transducers made by Transducer Techniques. These devices are simply force transducers housed and calibrated so that, when placed appropriately, a torque can be measured. The rig was designed so that the torque transducer is placed between the motor housing and support arm of the thrust mechanism, as is shown in Fig. 2.6. The two torque transducers

that are used have 25 oz-in. and 100 oz-in. capacities. The model that is used is selected based on the maximum torque that is expected to be produced by the propeller.

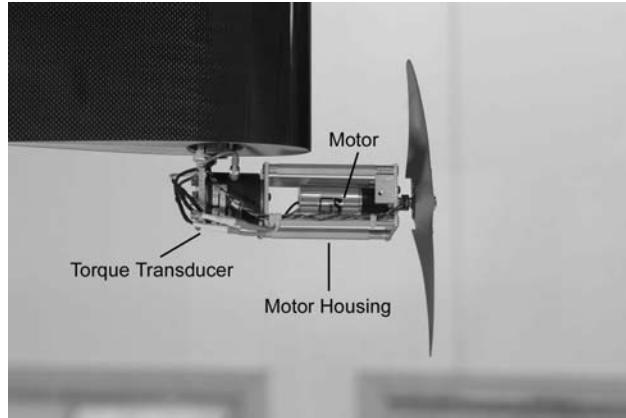


Figure 2.6: Torque transducer installed in the test rig.

2.2.3 Propeller Speed Measurement

To measure the propeller rotation speed, a photoreflector is used to count the number of revolutions the output shaft of the motor gearbox makes in a fixed interval (0.75 sec). The photoreflector used is a Honeywell HOA1180-002 Reflective Sensor, which has a transistor output and allows the sensor to be placed up to 0.5 in. (1.27 cm) from the reflective surface. When combined with a simple circuit of resistors and a 9-V battery, the output voltage is near 2 V when aimed at a reflective surface and near 0 V when aimed at a non-reflective surface. The circuit has a response time around 5 μ sec. The output voltages and response time of the circuit prove to be more than sufficient for measuring the rotational speed of the propellers with the current setup, which never exceeded 7,000 RPM.

To use the propeller speed measurement system, the photoreflector is focused at the propeller adapter, which connects the propeller to the output shaft of the gearbox. Adapters with a black finish have a strip of foil tape added to act as the reflective surface, where brushed aluminum adapters have a strip of black electrical tape added to act as the non-reflective surface. A photograph of the photoreflector installed on the test rig is shown in

Fig. 2.7. As the shaft turns, the photoreflector outputs a signal that is nearly a square wave where the peaks correspond to the reflective surface being in front of the photoreflector. The data acquisition system is used to acquire this signal for a 0.75 sec interval at 20,000 Hz; a portion of a representative signal is plotted in Fig. 2.8. The procedure for counting the revolutions and extracting the rotational speed is detailed in Section 2.4.1.



Figure 2.7: Photoreflector aimed at the output shaft.

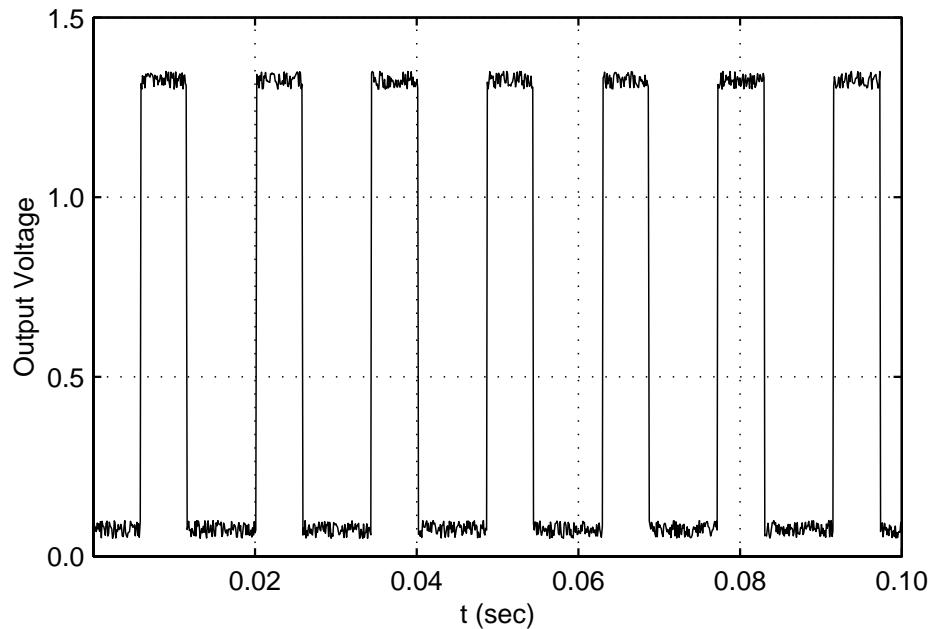


Figure 2.8: Representative signal from the propeller speed sensor.

2.2.4 Freestream Flow Measurements

The freestream flow was measured with a pitot-tube connected to a differential pressure transducer, an absolute differential pressure transducer, and a thermocouple. The dynamic pressure is measured with the pitot tube connected to one of two MKS differential pressure transducers; an MKS 220DD 1-torr transducer is used when the velocity is below 40 ft/sec and an MKS 221BD 10-torr model is used when the velocity exceeds 40 ft/sec. The atmospheric pressure outside of the tunnel is measured with an MKS absolute pressure transducer. The temperature is measured with an Omega GTMQSS T-type thermocouple located at the inlet of the wind tunnel. The methods used to convert these measured quantities into the velocity measurement are discussed in Section 2.4.

The pitot tube is positioned 5.25 in. above the wind tunnel floor, approximately 25.25 in. upstream of the propeller, at the centerline of the tunnel. This positioning requires corrections to be applied to the velocity measurements to account for the propeller inflow at that pitot tube. This setup is used because traditional techniques that use pressure measurements in the inlet to determine the velocity would be less accurate at the lower velocities tested.

2.2.5 Additional Experimental Equipment

In addition to the equipment detailed above, several additional pieces are needed to power and control the propeller. The propeller is driven by the Astro 020 Planetary System (model 803P) made by AstroFlight. This motor and gearbox system is a 200-W motor with a 4.4:1 gear ratio that is capable of driving the propeller to a maximum speed of 7,500 RPM. For simplicity in the laboratory, a variable voltage switch mode power supply, made by BK Precision, is used to power the motor. The model used, the BK1692, can be set to an output voltage of 3 V to 15 V with a maximum current of 40 A.

Given that the Astro 020 is a brushless motor designed to work with a speed controller, a method was needed to send the appropriate signal to the speed controller. To set the

rotational speed, a device called the ServoXciter EF, made by Vexa Control, is used. This device is intended to be used for testing R/C servos by allowing the operator to adjust the pulse-width of the signal being sent to the servo. Since the speed controller works with the same pulse-width modulation, the ServoXciter is used here as a throttle. Initially, the throttle was set manually using the knob on the ServoXciter. However, the device was modified so that it could be controlled with the data acquisition software, further automating the test. This was accomplished by modifying the ServoXciter to bypass the potentiometer, which was connected to the knob, and controlling the device with a command voltage from the data acquisition board.

2.3 Data Acquisition System

The data acquisition system includes a Dell 1.4-GHz Precision-330 computer workstation and a National Instruments NI PCI-6031E 16-bit analog-to-digital data acquisition board. The NI PCI-6031E has a resolution of 0.0015% of full-scale reading, 32 differential input channels, and two 16-bit digital-to-analog output channels. The 16-bit resolution of the board provided an accuracy of ± 0.305 mV when set for a full-scale range of ± 10 V.

The data acquisition software was developed using LabVIEW[®], which is a C-based software suite from National Instruments, for creating Graphical User Interfaces (GUIs). The GUIs were designed so that the progress of the experiment could be monitored, as all of the performance parameters are plotted as they are acquired and the wind tunnel and propeller operating conditions are also reported.

The propeller speed measurement requires a high data acquisition rate (20,000 Hz) to ensure that the signal from the photoreflector is accurately recorded. Due to limitations on the data acquisition board, this prohibits acquiring all of the data simultaneously. Thus, the propeller speed is first acquired at the higher data acquisition rate, then the remaining quantities (thrust, torque, dynamic pressure, atmospheric pressure, and temperature) are

acquired simultaneously immediately thereafter at a reduced rate (1,000 Hz). This method proves to be appropriate, as the propeller speed measurements show fluctuations below 0.1% over time periods significantly longer than those used for data acquisition.

2.4 Experimental Procedure

The experimental procedure includes setting up the experimental hardware and data acquisition system, calibration and calibration checks of the various instruments, and acquiring the performance data. The calibration checks performed during the setup process and the frequent calibrations performed throughout the tests ensure that the calibration data is as accurate as possible. Acquiring the performance data includes obtaining the static performance data (where $V_\infty = 0$) as well as obtaining the remaining performance data in one of two test modes. The two possible test modes allow the experimenter to sweep the advance ratio range by varying either the freestream velocity or propeller speed, while holding the other constant. Sections 2.4.1 through 2.4.3 detail each of the aforementioned steps of the experimental procedure.

2.4.1 Experimental Setup

Setting up the test involves installing all of the test hardware and measurement devices as well as the data acquisition system. The test hardware includes the wind tunnel floor and ceiling, the test rig, and the fairing. The wind tunnel ceiling is installed first, and gaps between the wind tunnel frame and the ceiling are sealed with tape. The fairing is then installed while taking care to ensure that the tunnel centerline is aligned with the centerline of the fairing. Next, the thrust measurement mechanism is fed down through the center of the fairing, aligned with the wind tunnel centerline and secured. Finally, the floor is installed, again sealing any seams that are present.

The measurement devices that must be installed include the thrust load cell, torque

transducer, and pitot tube along with all of the tubing and pressure transducers that accompany it. The thermocouple and atmospheric pressure transducer are already installed in fixed locations in the laboratory.

Prior to installing the thrust load cell and torque transducer, the outputs from these two devices are connected to an amplifying signal conditioner. This is done both to apply the excitation voltage to the transducers and to ensure proper, low-noise, amplification of the output. The signal conditioner used is the 2210 signal conditioning amplifier made by Measurements Group, this device is also used as a simple amplifier for the voltage output from the thermocouple. To setup the devices with the signal conditioner, the transducers are positioned so that there is no load applied to them. The signal conditioner is set to apply an excitation voltage of 10 V to the transducers and apply an $100\times$ gain to the output signals. After the torque cell is setup with the signal conditioner, the motor housing is attached to the metric side of the transducer, and the non-metric side is secured to the test rig. If the torque cell is changed during the experiment, the procedure must be repeated for the new torque cell.

The pitot tube is first mounted parallel to the flow 5.25 in. (13.34 cm) above the floor. It is inserted through a hole located along the centerline of the forward floor. The tubing is then attached to the two output ports of the pitot tube to connect it to the pressure transducers. The plumbing system that is used allows the pitot tube to be connected to four differential pressure transducers: two 1-torr transducers and two 10-torr transducers (one of each serves as a backup).

After the steps detailed above are performed, the measurement devices are connected to the data acquisition board, which is connected to the data acquisition computer. At this point, the experiment is ready to proceed to the calibration stage.

2.4.2 Calibration

The calibration procedure includes performing checks on factory-calibrated equipment and calibrating the thrust load cell for the various positions in which it can be placed. The calibration checks, or “check-cals,” are performed simply to ensure that the factory calibrations, which are traceable to NIST, are accurate. The check-cals are performed on the pressure transducers, the torque transducers, and the thermocouple. The load cell used for measuring the thrust is calibrated frequently during the testing, the reasoning for this and the accuracy of the calibrations are discussed in detail in Chapter 3.

Performing the check-cals on the various measurement devices simply involves comparing the actual outputs to the expected output for fixed operating conditions. The readings from the atmospheric pressure transducer and the thermocouple can be compared with readings taken with a barometer and thermometer, respectively. Since there are a total of four differential pressure transducers, their fidelity can be verified by ensuring that they are producing consistent dynamic pressure readings for a fixed wind tunnel speed. Finally, the calibration of the torque transducer is validated by suspending a calibration weight from a fixed moment arm and comparing the output voltage to that which is expected for the known torque.

Calibrating the thrust load cell involves setting the load cell in the desired location, applying a known force to the rig, recording the resulting voltages, and applying a linear regression to find the calibration slope. The load-cell position is chosen based on the propeller which is to be tested. In general, small, low-pitched propellers use a small constraining moment arm and increasing the diameter or pitch requires increasing the constraining moment arm. The known force is applied to the rig at the output shaft of the gearbox by attaching a line in tension, which is run over a low-friction pulley, to the output shaft. Care is taken to ensure that the force is being applied in the same direction of the thrust. The software is used to record the voltages, apply a linear regression, and extract the calibration slope.

2.4.3 Testing Procedure

Once the testing for an individual propeller is ready to begin, preliminary information is first gathered so that the operator can appropriately initialize the testing procedure. The static performance data is then acquired for varying propeller speed. Finally, the performance data is acquired in one of the previously mentioned testing modes.

The preliminary data which is gathered includes the diameter of the propeller and the limits on the rotational speed. Although the manufacturers provide a diameter for the propellers, the true diameters are measured to ensure that appropriate comparisons can be made with the performance data. The propeller is then installed and the minimum and maximum limits on the rotational speed are found to identify the range of operating conditions.

Acquiring all of the performance data simply involves properly initializing the acquisition software and allowing the automated test procedure to run. For the static case, the sidewalls of the wind tunnel are opened to ensure that propeller is in fact operating in a static state. All of the acquisition modes require the operator to enter the propeller diameter and select the load cell and torque transducer being used. The static acquisition requires the limits on the propeller speed to be entered. For the test mode that sweeps the advance ratio while holding the velocity constant, the desired velocity and the limits on the propeller speed are entered. In the mode that sweeps the advance ratio while holding the propeller speed constant, the desired propeller speed and the range of velocities are entered. Regardless of the mode being used, several data sets are acquired. For the constant velocity mode, several freestream velocities are tested. For the constant RPM mode, several propeller speeds are tested.

2.5 Data Reduction

The data reduction process starts by converting the measured voltages into physical measurements of thrust, torque, rotational speed, dynamic pressure, atmospheric pressure, and temperature. The thrust, torque, dynamic pressure, air temperature, and atmospheric pressure are all found using the calibration data that is either provided by the transducer manufacturer or found in the calibration procedure, and the measured voltage. The signal obtained from the photoreflector is used to determine the rotational speed of the propeller. The process used to derive this quantity is detailed in Section 2.5.1. From these quantities, the propeller power, air density, and tunnel speed are calculated according to

$$P = 2\pi n Q \quad (2.1)$$

$$\rho = \frac{P_{atm}}{R T_{air}} \quad (2.2)$$

$$V = \sqrt{\frac{2q}{\rho}} \quad (2.3)$$

Corrections are applied to the velocity to account for wind tunnel wall and blockage effects and to correct for the pitot tube being in an area influenced by the propeller inflow. These corrections are detailed in Section 2.5.2.

Finally, the above measured and derived quantities are non-dimensionalized to obtain the propeller performance data. The quantities include the thrust coefficient, power coefficient, and efficiency. For the static case ($J = 0$), the thrust and power coefficients are plotted against the propeller speed. For the non-static case ($J > 0$), the coefficients and the efficiency are plotted against the advance ratio. The definitions for the advance ratio, thrust and power coefficients, and propeller efficiency are given by

$$J = \frac{V}{nD} \quad (2.4)$$

$$C_T = \frac{T}{\rho n^2 D^4} \quad (2.5)$$

$$C_P = \frac{P}{\rho n^3 D^5} \quad (2.6)$$

$$\eta = J \frac{C_T}{C_P} \quad (2.7)$$

2.5.1 Propeller Speed Determination

Determining the propeller rotational speed from the photoreflector signal is a relatively straightforward process. First, the signal is analyzed to determine the minimum and maximum voltage readings. Next, the software analyzes each data point to determine if the reading is indicating a reflective or non-reflective surface. Each time the state changes, the switch is counted and the duration of the previous state is recorded. The propeller speed is then determined from the total number of revolutions and the sampling time used to acquire the signal.

2.5.2 Velocity Corrections

With the current setup, several factors are present that warrant velocity corrections, as the dynamic pressure measured is not equivalent to the true freestream dynamic pressure that would be found under normal, open-air operating conditions. The effect that the propeller inflow has on the velocity measurement is corrected with a scheme developed specifically for these tests. Two additional methods are used to account for the solid blockage caused by the fairing and the constriction of the propeller slipstream caused by the wind tunnel walls. The correction that accounts for the inflow caused by the propeller is iterative in nature, where the other two correction factors are not. Since the remaining two corrections are to be applied to the freestream velocity of the wind tunnel, the measured velocity is first corrected for the inflow. Subsequently, the remaining two corrections are applied to the corrected freestream velocity of the wind tunnel.

The correction to account for the inflow at the pitot tube models the induced flow with a double helical vortex extending “infinitely” downstream. The key factors in this correction include the radius and pitch of the helix, as well as the strength of the vortex. Below, Eqs. 2.10 and 2.12 show that the vortex strength is a function of the disk loading T/A . To develop this method, MATLAB[®] was used to set up the doubly infinite image system of helical vortices, as suggested in Ref. [18]. This program was used to find the velocities induced both at the propeller disk and the pitot tube for varying helix pitch and radius using a unit strength vortex. Due to the computational effort required for this correction scheme, the method was not directly incorporated into the data acquisition and reduction software. Accordingly, results from the MATLAB[®] script are tabulated and the finite data sets are interpolated to find the velocity correction. Although this method is developed for a 2-bladed propeller, it will suffice as a correction for a blade with an arbitrary number of blades. This results from the scheme being independent of the blade number (see below). For a propeller with a different number of blades, the 2-blade equivalent vortex system corrects for the inflow. The iterative scheme is outlined below.

1. Set the freestream velocity. The first estimate uses the measured velocity and subsequent guesses use an under-relaxed estimate that combines the previous estimate and the corrected velocity according to Eq. 2.8, where $a = 0.5$.

$$\hat{V}_{\infty,+} = (1 - a) \hat{V}_{\infty,-} + a V_{corr} \quad (2.8)$$

where in the following

$$V_{\infty} = \hat{V}_{\infty,+} \quad (2.9)$$

2. Use Eq. 2.10, found in Ref. [19], to find the velocity induced at the propeller disk u_{disk} based on momentum theory.

$$u_{disk} = -V_{\infty} + \sqrt{V_{\infty}^2 + \frac{2T}{\rho A}} \quad (2.10)$$

3. Calculate the pitch of the vortex system based on the freestream velocity, induced velocity at the disk, and propeller tip speed using Eq. 2.11, as it is suggested in Ref. [18].

$$\tan k = \frac{V_\infty + u_{disk}}{V_{tip}} \quad (2.11)$$

4. Interpolate the data set for the inflow induced at the propeller disk using the propeller radius R and helix pitch k to find the inflow induced by a unit strength vortex $u_{\Gamma=1}$.
5. Calculate the vortex strength needed to produce u_{disk} using Eq. 2.12.

$$\Gamma = \frac{u_{disk}}{u_{\Gamma=1}} \quad (2.12)$$

6. Find the induced velocity at the pitot tube, \vec{V}_{pitot} , using the propeller radius, helix pitch k , and vortex strength Γ by interpolating the data set established for the inflow at the pitot tube.
7. Calculate the flow angle using Eq. 2.13, where the components of the velocity vector are those illustrated in Fig. 2.9.

$$\sin \Lambda = \frac{\sqrt{v_{pitot}^2 + w_{pitot}^2}}{V_{meas}} \quad (2.13)$$

8. Calculate the corrected freestream velocity using Eq. 2.14

$$V_{corr} = V_{meas} \cos \Lambda - u_{pitot} \quad (2.14)$$

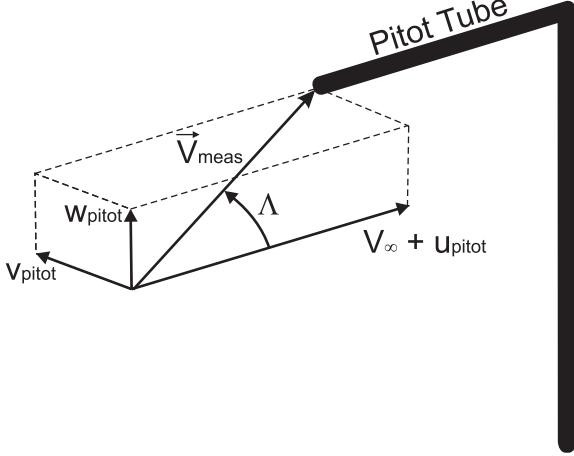


Figure 2.9: Measured velocity vector at the pitot tube.

Once the above scheme is used to correct the measured velocity for the inflow induced at the location of the pitot tube, the remaining two corrections are applied. The presence of the fairing in the wind tunnel reduces the cross-sectional area, increasing the velocity in the vicinity of the fairing. To correct for this, the 3-D solid blockage technique presented in Ref. [20] and shown in Eq. 2.15 is used. The factors K_1 and τ_1 (see Ref. [20]) are determined from the fairing thickness ratio and the ratio between the model span and tunnel breadth, respectively. $\bar{V}_{fairing}$ and C are the volume of the fairing and the cross-sectional area of the wind tunnel, respectively.

$$\frac{\Delta V}{V_u} = \frac{K_1 \tau_1 \bar{V}_{fairing}}{C^{3/2}} \quad (2.15)$$

The boundary correction used to account for the wind tunnel walls was developed by Glauert in Ref. [21]. The wind tunnel walls constrict the flowfield, causing an increased static pressure in propeller slipstream. Thus, the thrust that is developed would actually be produced by a lower freestream velocity in an unrestricted flow, which is based on a continuity analysis. The correction needed to account for this effect is presented in Eq. 2.16, where $\tau_4 = T/\rho A V_\infty^2$ and $\alpha_1 = A/C$.

$$\frac{V_{corr}}{V_\infty} = 1 - \frac{\tau_4 \alpha_1}{2\sqrt{1+2\tau_4}} \quad (2.16)$$

Chapter 3

Data Validation

In order to verify the integrity of the data presented in this thesis, data validation is presented here, in Chapter 3. Given that the test was developed recently, a three-pronged approach to the data validation was taken so that the techniques and results could be sufficiently scrutinized. First, a general uncertainty analysis is performed for all of the physical quantities used in deriving the performance data that is presented. Next, the repeatability of the tests is verified and reported with representative data sets. Finally, the results obtained with the experiment are compared with those which are obtained with PROPID (Ref. [22]), software which is designed to predict wind-turbine and propeller performance. Using each of these methods for data validation, it is illustrated that the data gathered and presented here is both reliable and accurate.

3.1 Uncertainty Analysis

Based on the uncertainties of the measurement devices, the data acquisition board, and the calibration equations, a general uncertainty analysis is performed according to standard uncertainty propagation methods shown in Coleman & Steele [23]. The uncertainties analyzed in this fashion include the wind tunnel velocity and the propeller thrust, torque, power, and efficiency. The uncertainties in the ambient pressure and air temperature, which are used in intermediate calculations, were taken from Ref. [24]. In addition, the uncertainty in the

propeller speed measurement is estimated based on the response of the photoreflector and several observations of the measurements under constant operating conditions. A summary of the uncertainty analysis is presented in Table 3.1.

For estimating the uncertainty of the propeller speed measurement, the method of reducing the signal acquired from the photoreflector is first considered. The counting process used to determine the propeller speed will average out any effects of the circuit settling time. Further, considering that the sampling interval is small compared with the time spent in a constant light or dark state, no frequency aliasing is expected. Accordingly, the uncertainty of the propeller speed measurement simply comes from observing the consistency of several measurements taken at constant operating conditions. Observing several data sets showed that the uncertainty in the rotational never exceeds 0.1%, and is often far less than that.

Table 3.1: Uncertainty Estimates

Quantity	Uncertainty
Efficiency	0.595%
Power	0.240%
Propeller Speed	0.100%
Thrust	0.504%
Torque	0.218%
Freestream Velocity	0.207%

The uncertainties observed here all prove to be small; only the uncertainties in the thrust and efficiency exceed 0.5%. With the exception of the thrust, none of the uncertainties have a dominant term. The uncertainty in the thrust is dominated by that of the calibration slope, which is determined by the experimenter. The individual calibration slopes varied up to 2% over the entire test series, but the uncertainty in an individual calibration slope never exceeded 0.5%. Given that the calibration is repeated frequently throughout the test series,

the drift is not a concern and is not included in the uncertainty of the thrust. The remaining calibration slopes proved to be significantly smaller, and thus did not dominate the other uncertainties.

3.2 Repeatability of Measurements

The experimental hardware, software, and procedure were all designed to ensure that high-quality, consistent data is being acquired. Accordingly, the performance data for an individual propeller should be consistent no matter when it is acquired. The fidelity of the data was tested simply by testing several propellers repeatedly to validate the consistency of the data. A standard set of propellers has been established so that the quality of the setup can be verified at the beginning of each test series. Figures 3.1–3.3 show comparisons of the APC 10×4.7 Slow Flyer performance acquired in the Summer of 2004 and Fall of 2004. These plots show that exceptional repeatability is attainable for all of the performance parameters.

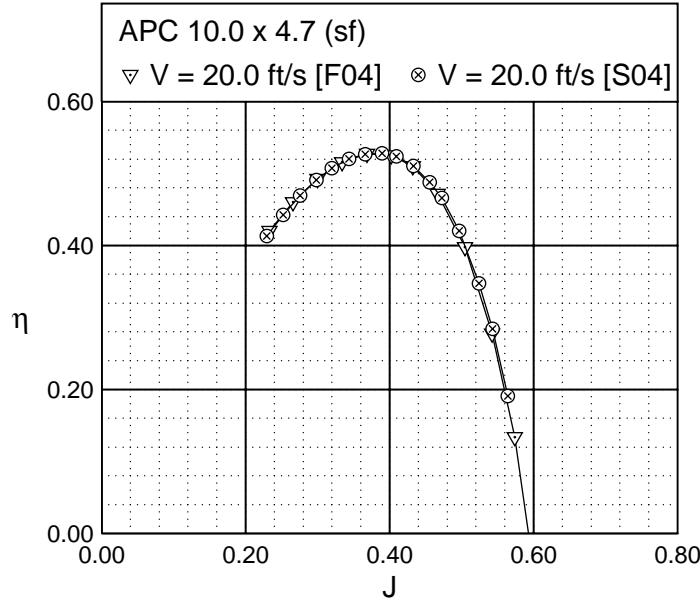


Figure 3.1: Efficiency data for the APC 10×4.7 from the Summer and Fall of 2004.

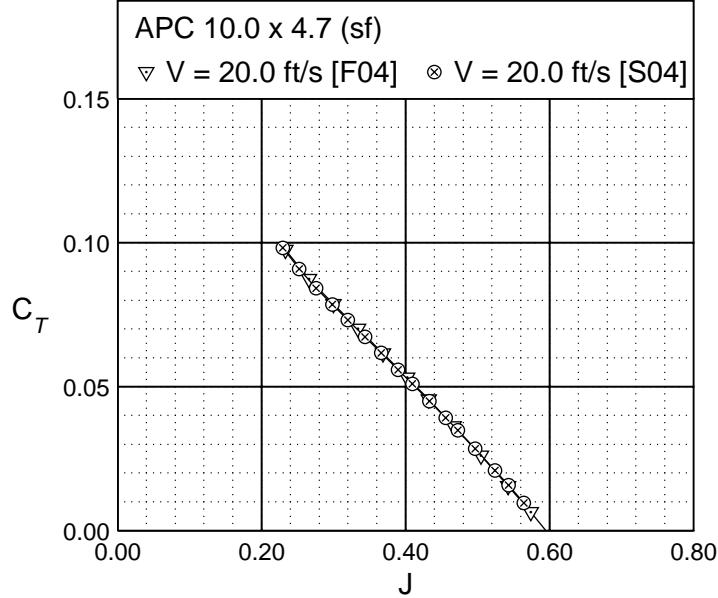


Figure 3.2: Thrust coefficient data for the APC 10×4.7 from the Summer and Fall of 2004.

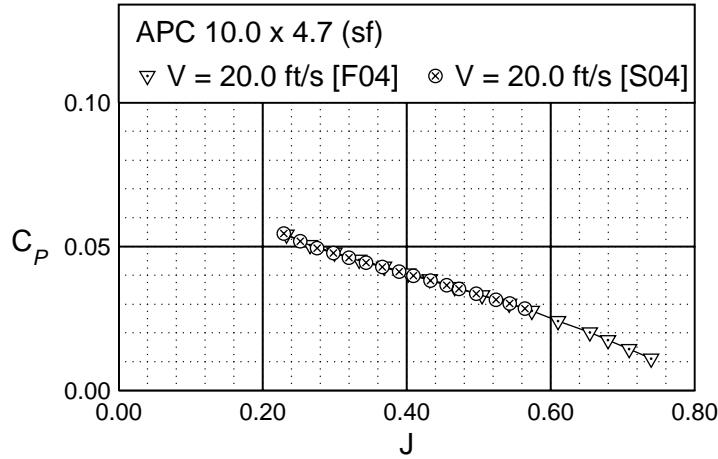


Figure 3.3: Power coefficient data for the APC 10×4.7 from the Summer and Fall of 2004.

3.3 Comparisons with Predictions

The last approach to validating the experimental data is to compare the measured performance data with predictions. For these comparisons, the APC Slow Flyer 10×7 and the Graupner CAM 11×4 propellers were examined. The predictions were made using blade-

element momentum theory implemented in the code PROPID (Ref. [22]), which derives its roots from the original PROP code documented in Refs. [25]–[30].

Desirable features of the code are that it allows for rapid design and analysis of propellers and wind turbines, accommodates different airfoil data for each blade element, and includes a three-dimensional post-stall airfoil performance synthesization method to account for the stall-delay effect. Although discrepancies between tests and predictions have been documented and discussed in the literature, the code has proven to be invaluable as a guide in designing of a series of successful wind turbine blade designs and propellers.

To define the propeller geometry used as input to PROPID, the propellers were photographed in top view and side view from which the propeller blade chord and twist distributions were extracted using the *PropellerScanner* software (Ref. [31]). These data are included in Chapter 5 along with the measured chord and twist distributions of all of the propellers tested. For the two airfoils discussed in this section, the airfoil shapes were estimated based on measurements, and representative airfoil performance data was created and used in the predictions. To mitigate issues concerning the validity of the airfoil data at the lowest Reynolds numbers, which occur toward the inboard section of the propeller blade and at the lowest propeller speed, only the data for the highest propeller speed of 6,000 RPM is presented. Comparisons between measurements and predictions are given in Figs. 3.4–3.9 for the APC Slow Flyer 10×7 and the Graupner CAM 11×4 propellers, respectively.

Overall, the results show that the predicted thrust and power coefficient data generally fall below measurements, but taken together the efficiency curves are in better agreement with experiment. The discrepancies in the thrust and power data are at present not explainable. Relatively large changes to airfoil data (more lift) and/or geometry (more pitch) must be made to drive the predictions closer to experiment. Changes such as these are not justifiable at present. Clearly, further study is warranted to better understand the aerodynamics of propellers at low Reynolds numbers.

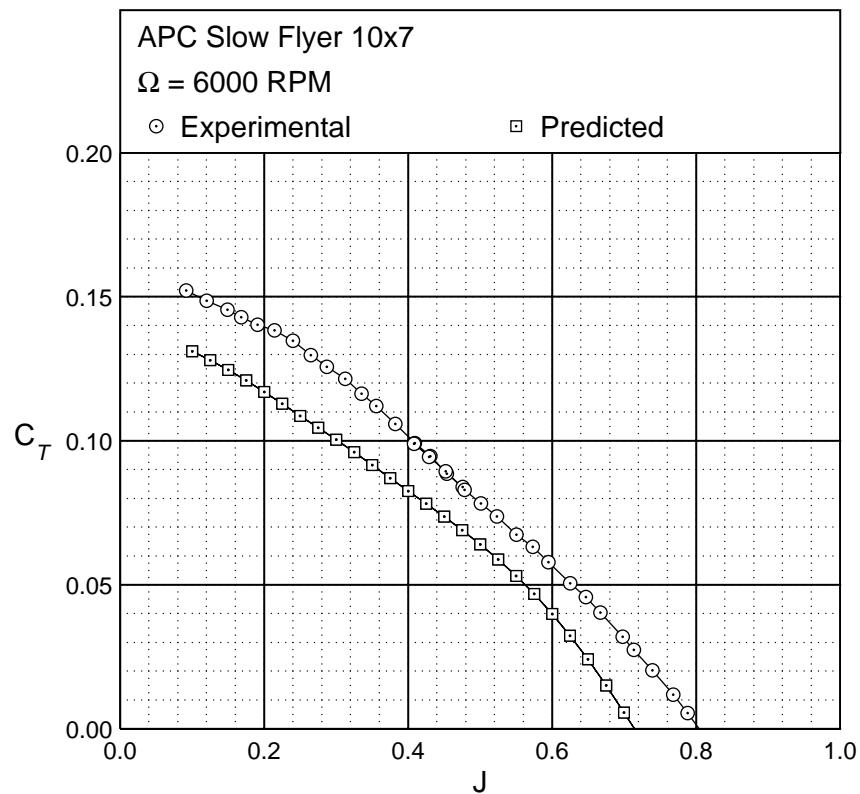


Figure 3.4: Experimental and predicted thrust coefficients for the APC Slow Flyer 10×7 .

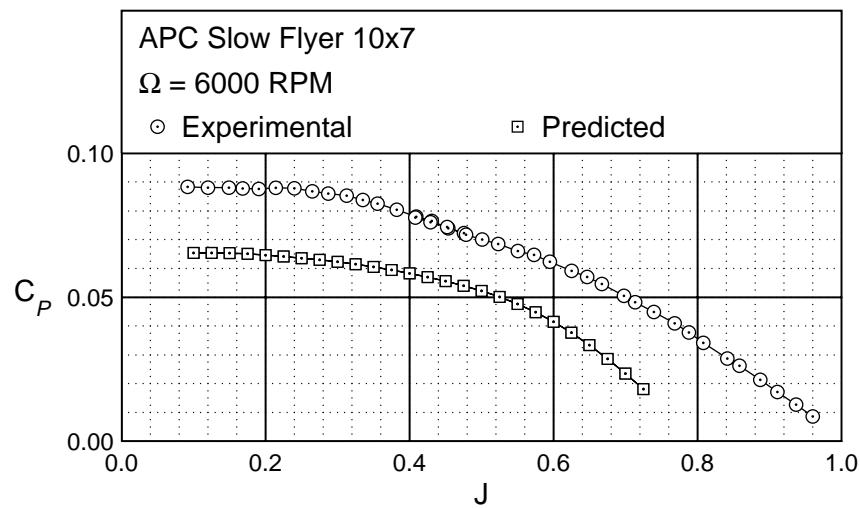


Figure 3.5: Experimental and predicted power coefficients for the APC Slow Flyer 10×7 .

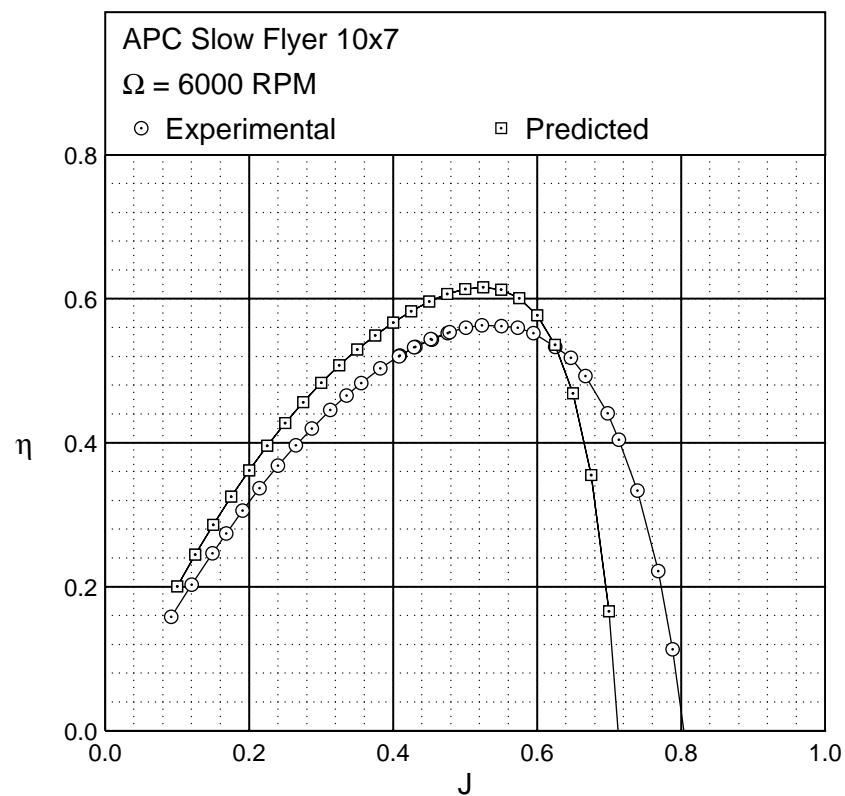


Figure 3.6: Experimental and predicted efficiencies for the APC Slow Flyer 10×7.

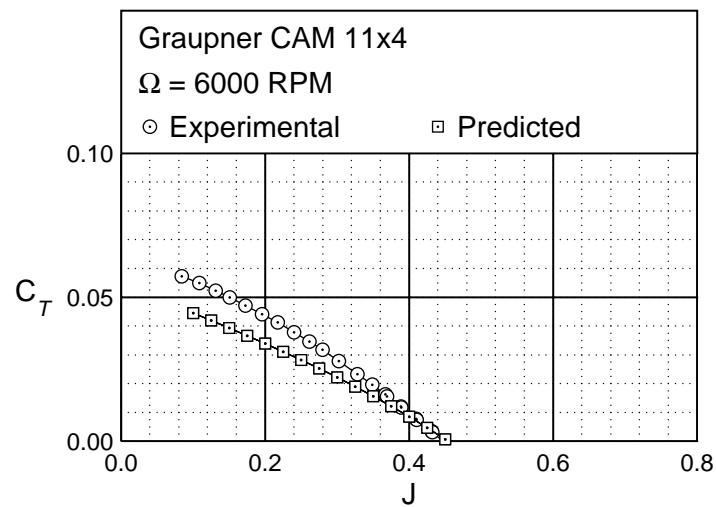


Figure 3.7: Experimental and predicted thrust coefficients for the Graupner CAM 11×4.

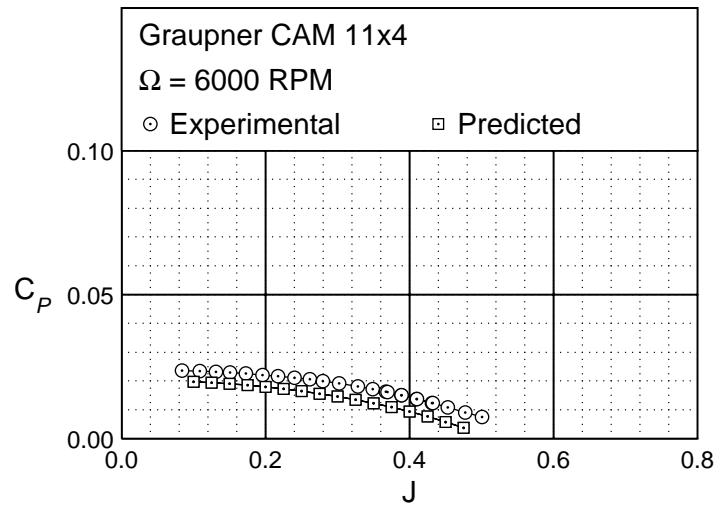


Figure 3.8: Experimental and predicted power coefficients for the Graupner CAM 11×4.

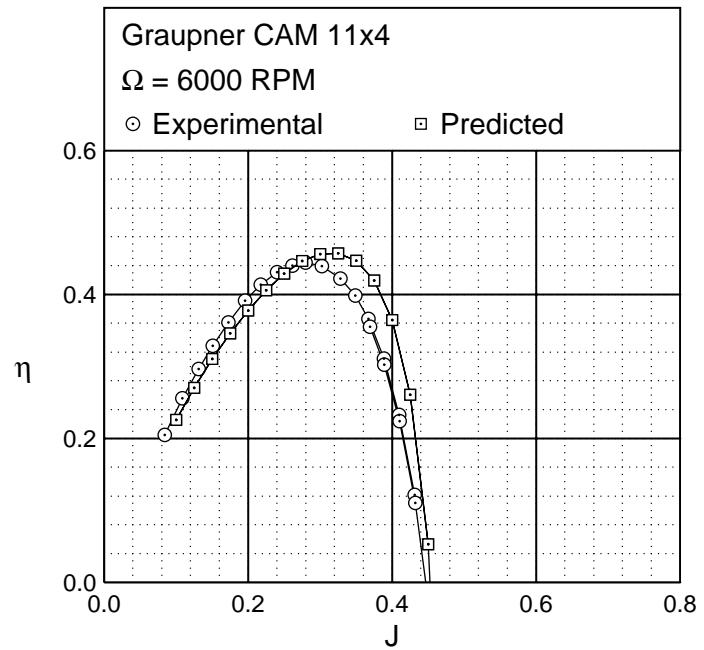


Figure 3.9: Experimental and predicted efficiencies for the Graupner CAM 11×4.

Chapter 4

Summary of Propeller Data

Although the propellers tested here are limited to non-folding, two-bladed propellers, a wide range of propeller styles were tested nonetheless. The majority of the propellers tested had diameters ranging from 9 in. to 11 in., though a few larger sizes were tested. For this series of tests, all of the propellers were tested without any alterations. Thus, any sharp and sometimes ragged leading edges that result from manufacturing processes remained. Some of the models tested are intended to be used on aircraft with electric motors, while others are designed to be used with fuel powered engines. With such a wide range of designs tested, a wide range of performance characteristics are observed. Here, the general trends found in the data are highlighted, although trends in the thrust and power coefficient are discussed briefly, the propeller efficiency is the main focus.

Looking at the entire set of data, one general trend is observed throughout. As the propeller speed is increased, the performance improves; this is most evident through increased efficiency. The degree of the improvement varies from propeller to propeller, but it is a trend that is consistent. This improvement is also seen in the thrust coefficient curves, as higher thrust coefficients are obtained with increasing propeller speed. The increased thrust is most easily seen looking at the static thrust plots in Chapter 5.

The performance improvement that accompanies the increased propeller speed is an expected trend given that the propellers are operating with low chord-based Reynolds numbers and that increasing the propeller speed increases the Reynolds number. The work presented

in Refs. [14]–[17], as well as myriad of other studies performed on low Reynolds aerodynamics, show that the aerodynamic performance of airfoils improves with increasing Reynolds numbers. Extending this improved performance to the airfoils on the propellers, shows that this trend is indeed expected. Below, in Sections 4.1–4.5, the trends observed for the different brands and styles are discussed.

4.1 APC Propellers

Three types of APC propellers were tested, namely the Slow Flyer, Sport, and Thin Electric propellers. Both the Slow Flyer and Thin Electric propellers are designed to be used solely with electric motors. The Sport propellers are designed to handle the increased torque produced by gas powered engines. The airfoil profiles on the Slow Flyer propellers are quite thin with a sharp leading edge, where the remaining two have thicker airfoil sections with rounded leading edges.

All of the APC propellers show some variation in the performance curves that is consistent with the overall trends. The Slow Flyers show the least variation in efficiency and the differences are larger near peak efficiency. The Sport propellers exhibit the largest efficiency variance that is observed over the entire range of advance ratio. Similar to the Slow Flyers, the Thin Electric propellers also show increased performance differences near peak efficiency. One interesting trend is found in the thrust and power coefficients for the Thin Electric propellers; it is seen that variations in these coefficients are dramatically increased over a small range of advance ratio near the peak efficiency.

4.2 Graupner Propellers

The four styles of Graupner propellers tested include the CAM, CAM Slim, Slim, and Super Nylon propellers. The former three are all designed specifically for use with electric motors,

and the latter are intended to be used with gas powered engines. The CAM and Super Nylon propellers are designed with moderately thick airfoils with conventional round leading edges; whereas, the CAM Slim and Slim propellers are designed with much thinner airfoil sections that have sharp leading edges.

The CAM propellers all show significant differences in the efficiency curves over the range of propeller speeds. These differences are rooted in significant variations in the thrust characteristics and minor variations in the power characteristics. Both the CAM Slim and Slim propellers show only minor variations in peak efficiency, with the Slim propeller showing some of the smallest variations in performance. The CAM Slim propellers show minor variations in both the thrust and power coefficients over a small range of advance ratio that correspond to the region of peak efficiency. Finally, the Super Nylons show moderate variations in the efficiency, with increased differences seen near the peaks.

4.3 GWS Propellers

The two styles of GWS propellers that were tested are the Direct Drive and Slow Flyer propellers, both of which are designed to be used with electric motors. The Direct Drive propellers are designed to operate at higher rotational speeds, where the Slow Flyers are designed to operate at lower rotational speeds. Both styles of GWS propellers are designed with thin airfoils with sharp leading edges.

The GWS Direct Drive propellers show moderate variations in the peak efficiencies for the range of propeller speeds tested, where the Slow Flyers show minimal variations in the performance. Looking at the GWS Slow Flyer data, unique trends are observed in both the efficiency and coefficient curves. In all other cases tested, increasing the propeller speed increased the efficiency, thrust coefficient, and power coefficient by varying degrees. However, it is observed here that the GWS Slow Flyers have lower efficiencies, thrust coefficients, and power coefficients at higher advance ratio. These trends are believed to be a result of blade

flutter, as excessive noise was observed in a few extreme cases.

During the testing, at higher propeller and wind speeds, the GWS Slow Flyer propellers produced excessive noise and appeared to be fluttering. Two extreme cases were also observed in the testing. The first case was observed with the GWS 11×4.7 Slow Flyer. While operating at the highest propeller speed (6,000 RPM), after the propeller efficiency dropped below zero, the power coefficient leveled off (remaining positive in value) and prevented the propeller from entering the wind-milling state. The second extreme case was observed with the GWS 11×8 Slow Flyer operating at the highest propeller speed (5,700 RPM). Near the end of the run, the power coefficient began to level off, as was seen with the 11×4.7 , but in this case, the blade shattered. These extreme cases show the ultimate results of the blade flutter, where the minor effects are seen in the degradation of performance.

4.4 Kyosho Propellers

The Kyosho propellers are designed specifically for use with electric motors and use moderately thick airfoils with round leading edges. The Kyosho propellers exhibit trends that are consistent with the overall trends discussed above. Over the range of propeller speeds tested, the efficiency is seen to increase by 5–10%, where the largest improvements are seen in the region near peak efficiency. For varying propeller speeds, the power coefficients curves are insensitive to Reynolds number at low advance ratio but begin to deviate from one another at higher advance ratios. Unique to this series of propellers is the lack of a consistent trend in the thrust coefficient curves; for each propeller, the differences seen in the thrust coefficient curves differ.

4.5 Master Airscrew Propellers

The Master Airscrew propellers tested included propellers limited to electric applications as well as propellers that could be used with either gas powered engines or electric motors. The Electric series are designed to only be used with electric motors. Both the G/F and Scimitar series are designed for use with gas powered engines but can be easily used with electric motors as well. The Master Airscrew propellers are designed with relatively thick airfoils with round leading edges, but they have a sharp leading edge that is a result of the manufacturing process.

The Master Airscrew Electric series show performance variations that are moderate in magnitude and consistent with the overall trends. The G/F series show some of the largest variations in both the efficiency and thrust coefficient curves, as the differences are exacerbated for the lower pitched propellers. The Master Airscrew G/F 11×4 shows that the peak efficiency nearly doubles over the range of propeller speeds tested, see Fig. 5.410. The Scimitar series shows moderate changes in performance for varying propeller speeds, where the differences are magnified over certain ranges of advance ratio.

Chapter 5

Propeller Geometry and Performance Data

In this chapter, the geometric characteristics and performance data is provided for all of the propellers tested, which are listed in Table 5.1. In addition, a summary of the static efficiency (C_T/C_P) is provided in Table 5.2; the data presented here was found by interpolating the experimental data. Appendices A–C provide tabular forms of the data presented here.

For each propeller tested, the true diameter is given along with the chord and twist distributions. A summary of the geometric inputs and outputs from the propeller digitization process is provided in Appendix A. For each propeller, this table gives the true diameter, the chord length at the 75% blade station, and the root and tip thickness ratio corrections used by the *PropellerScanner* software.

The performance data for each propeller is summarized in five plots that show the efficiency, thrust coefficient, and power coefficient as functions of the advance ratio and the static thrust and power coefficient as functions of propeller speed. For reference purposes, the Reynolds number, which is calculated using the chord length and rotational speed at the 75% blade station, is also provided on the static performance plots.

Table 5.1: List of Propellers Tested

Brand	Style	Model	Designation
APC	Slow Flyer	LP09047	9×4.7
		LP09060sf	9×6
		LP10047	10×4.7
		LP10070sf	10×7
		LP11038sf	11×3.8
		LP11047	11×4.7
		LP11070sf	11×7
APC	Sport	LP09050	9×5
		LP09070	9×7
		LP10060	10×6
		LP10080	10×8
		LP11040	11×4
		LP11050	11×5
		LP11060	11×6
		LP11070	11×7
		LP11080	11×8
		LP11090	11×9
		LP14013	14×13
APC	Thin Electric	LP09045e	9×4.5
		LP09060e	9×6
		LP10050e	10×5
		LP10070e	10×7
		LP11055e	11×5.5

Table 5.1: List of Propellers Tested (*continued*).

Brand	Style	Model	Designation
APC	Thin Electric	LP11070e	11×7
		LP11080e	11×8
		LP11085e	11×8.5
		LP11010e	11×10
		LP14012e	14×12
		LP17012e	17×12
		LP19012e	19×12
Graupner	CAM Prop	1360.23.10	9×4
		1360.23.15	9×6
		1360.25.15	10×6
		1360.25.20	10×8
		1360.28.10	11×4
		1360.28.15	11×6
		1360.28.20	11×8
Graupner	CAM Slim Prop	1372.23.15	9×6
		1372.25.15	10×6
		1372.25.20	10×8
Graupner	Slim Prop	1372.23.12	9×5
Graupner	Super Nylon	1316.23.12	9×5
		1316.23.18	9×7
		1316.25.15	10×6
		1316.25.18	10×7
		1316.28.15	11×6

Table 5.1: List of Propellers Tested (*continued*).

Brand	Style	Model	Designation
Graupner	Super Nylon	1316.28.20	11×8
GWS	Direct Drive	EP-9050	9×5
		EP-1060	10×6
		EP-1170	11×7
GWS	Slow Flyer	EP-0947	9×4.7
		EP-9070	9×7
		EP-1047	10×4.7
		EP-1080	10×8
		EP-1147	11×4.7
		EP-1180	11×8
Kyosho		90409-06	9×6
		90410-06	10×6
		90410-07	10×7
		90411-07	11×7
		90411-09	11×9
Master Airscrew	Electric	E0960	9×6
		E1070	10×7
		E1170	11×7
Master Airscrew	G/F	G0940	9×4
		9x6	9×6
		K1060	10×6
		K1080	10×8
		11x4	11×4

Table 5.1: List of Propellers Tested (*continued*).

Brand	Style	Model	Designation
Master Airscrew	G/F	11x6	11×6
		11x7	11×7
		11x8	11×8
Master Airscrew	Scimitar	0950S	9×5
		0970S	9×7
		1050S	10×5
		1070S	10×7
		1160S	11×6
		1170S	11×7
		1180S	11×8

Table 5.2: Summary of Static Performance.

Propeller			C_T/C_P				
Brand	Style	Designation	Ω (RPM)				
			2000	3000	4000	5000	6000
APC	Slow Flyer	9×4.7	–	2.12	2.15	2.17	2.19
		9×6	–	1.82	1.79	1.74	1.69
		10×4.7	–	2.21	2.22	2.21	2.20
		10×7	–	1.89	1.86	1.83	–
		11×3.8	–	2.68	2.69	2.70	2.68
		11×4.7	2.47	2.51	2.51	2.49	2.46
		11×7	2.05	2.05	2.02	1.98	–
APC	Sport	9×5	–	1.72	1.83	1.93	2.04
		9×7	–	1.41	1.52	1.60	1.71
		10×6	–	1.72	1.81	1.93	2.04
		10×8	1.27	1.34	1.39	1.43	1.54
		11×4	1.88	2.10	2.24	2.51	2.61
		11×5	1.93	2.11	2.34	2.49	2.54
		11×6	1.78	1.94	2.09	2.23	2.31
		11×7	1.62	1.79	1.93	2.05	2.15
		11×8	1.52	1.63	1.82	2.01	–
		11×9	1.32	1.40	1.47	1.56	–
APC	Thin Electric	14×13	1.23	1.32	–	–	–
		9×4.5	–	2.11	2.22	2.27	2.29
		9×6	–	1.89	1.94	1.98	2.01
		10×5	–	2.25	2.31	2.34	2.35

Table 5.2: Summary of Static Performance (*continued*).

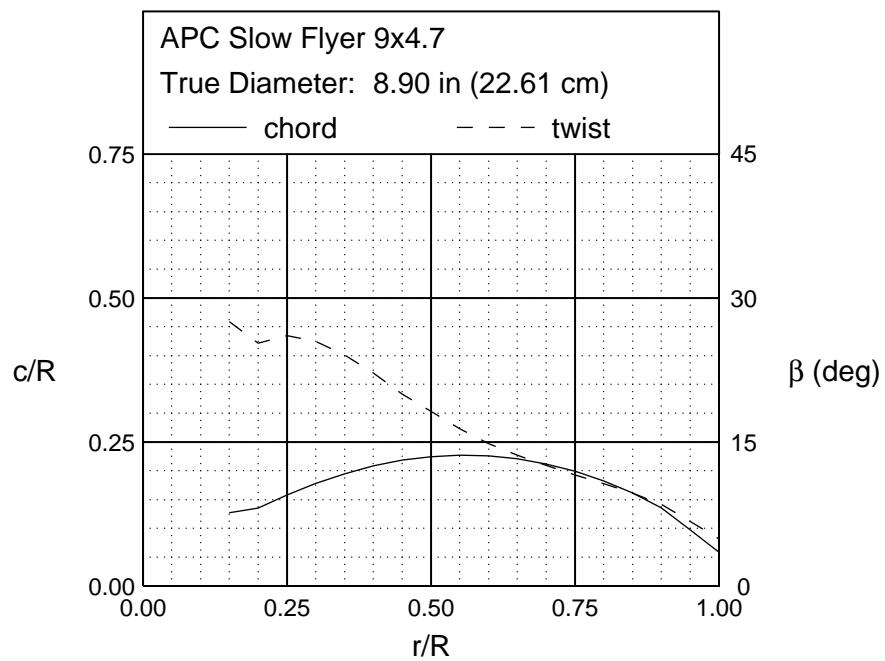
Propeller			C_T/C_P				
Brand	Style	Designation	Ω (RPM)				
			2000	3000	4000	5000	6000
APC	Thin Electric	10×7	1.61	1.70	1.75	1.81	1.98
		11×5.5	2.33	2.58	2.66	2.68	2.68
		11×7	2.04	2.22	2.32	2.34	2.35
		11×8	1.80	1.88	1.90	1.95	2.14
		11×8.5	1.58	1.66	1.70	1.71	1.85
		11×10	1.32	1.28	1.26	1.26	—
		14×12	1.37	1.39	—	—	—
		17×12	1.64	1.67	—	—	—
		19×12	2.28	2.36	—	—	—
Graupner	CAM	9×4	—	1.86	2.00	2.15	2.28
		9×6	—	1.59	1.74	1.81	1.92
		10×6	1.65	1.86	2.07	2.19	2.24
		10×8	1.33	1.45	1.57	1.60	1.65
		11×4	—	2.30	2.50	2.64	2.82
		11×6	1.89	2.17	2.39	2.60	2.66
		11×8	1.51	1.68	1.81	1.95	1.99
Graupner	CAM	9×6	—	1.51	1.53	1.54	1.55
		10×6	—	1.93	1.96	1.97	1.97
		10×8	—	1.49	1.51	1.53	1.53
Graupner	Slim	9×5	—	2.09	2.17	2.22	2.26

Table 5.2: Summary of Static Performance (*continued*).

Propeller			C_T/C_P				
Brand	Style	Designation	Ω (RPM)				
			2000	3000	4000	5000	6000
Graupner	Super Nylon	9×5	–	1.88	1.99	2.06	2.10
		9×7	–	1.67	1.74	1.76	1.77
		10×6	–	2.01	2.12	2.15	2.17
		10×7	1.78	1.93	1.95	1.96	1.98
		11×6	2.24	2.36	2.43	2.47	2.49
		11×8	–	2.13	2.17	2.19	–
GWS	Direct Drive	9×5	–	2.13	2.23	2.30	2.34
		10×6	–	2.29	2.35	2.37	2.36
		11×7	–	2.47	2.54	2.55	2.57
GWS	Slow Flyer	9×4.7	–	2.01	2.06	2.11	2.15
		9×7	–	1.64	1.62	1.60	1.49
		10×4.7	–	2.09	2.13	2.14	2.13
		10×8	–	1.83	1.84	1.83	–
		11×4.7	–	2.37	2.40	2.43	2.42
		11×8	1.97	1.96	1.93	1.68	–
Kyosho		9×6	–	1.80	1.97	2.06	2.09
		10×6	–	1.62	1.74	1.80	1.83
		10×7	–	1.44	1.61	1.79	1.98
		11×7	–	2.08	2.19	2.24	2.26
		11×9	1.28	1.44	1.87	1.94	1.96

Table 5.2: Summary of Static Performance (*continued*).

Propeller			C_T/C_P				
Brand	Style	Designation	Ω (RPM)				
			2000	3000	4000	5000	6000
Master Airscrew	Electric	9×6	–	1.35	1.41	1.49	1.56
		10×7	–	1.61	1.76	1.92	1.93
		11×7	–	1.71	1.83	1.97	–
Master Airscrew	G/F	9×4	–	1.84	2.08	2.21	2.29
		9×6	–	1.63	1.91	2.01	2.07
		10×6	–	2.07	2.17	2.22	2.24
		10×8	1.74	1.90	1.92	1.92	1.92
		11×4	–	2.35	2.60	2.73	2.81
		11×6	–	2.32	2.43	2.49	2.52
		11×7	–	2.26	2.40	2.47	2.51
		11×8	1.91	2.13	2.22	2.24	2.26
Master Airscrew	Scimitar	9×5	–	1.47	1.56	1.67	1.79
		9×7	–	1.61	1.86	1.94	1.97
		10×5	–	1.60	1.67	1.79	1.91
		10×7	–	1.81	1.95	1.98	1.99
		11×6	–	1.80	1.96	2.15	2.27
		11×7	–	1.88	2.03	2.17	2.28
		11×8	1.72	2.02	2.14	2.17	2.18



Front View



Side View

Figure 5.1: APC Slow Flyer 9×4.7 geometric characteristics.

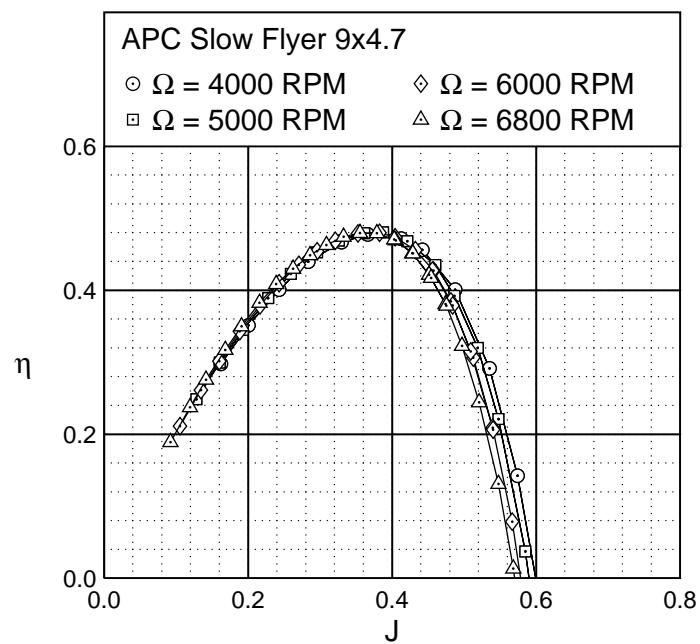


Figure 5.2: APC Slow Flyer 9×4.7 efficiency curves.

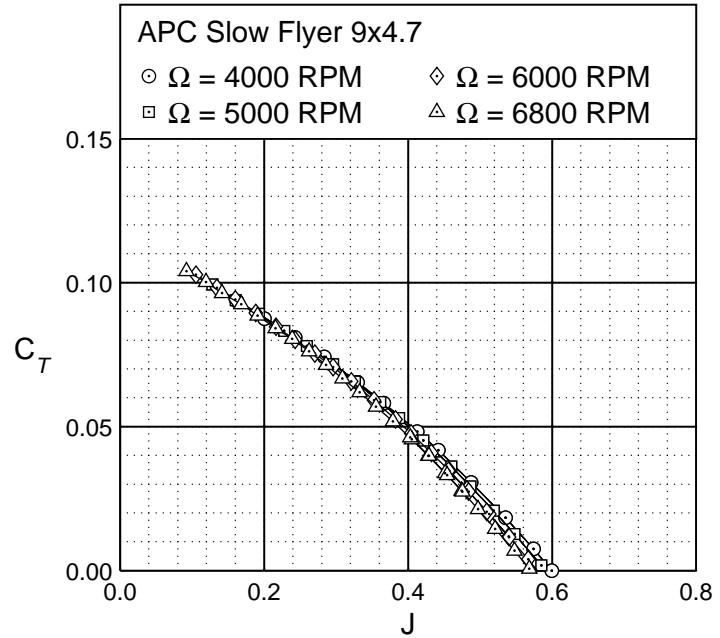


Figure 5.3: APC Slow Flyer 9×4.7 thrust characteristics.

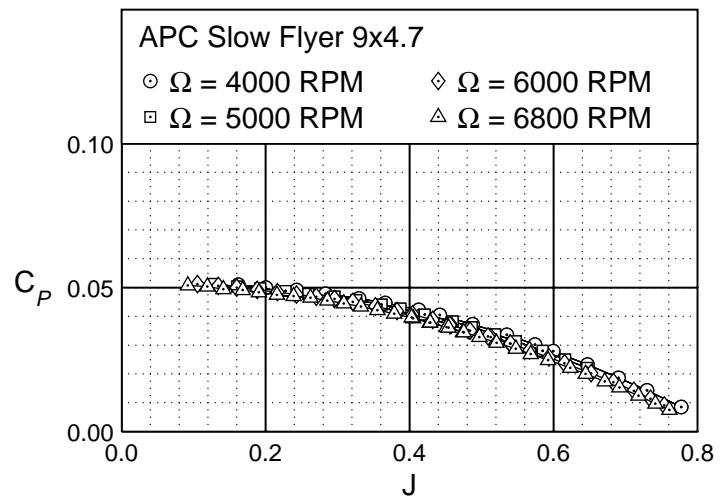


Figure 5.4: APC Slow Flyer 9×4.7 power characteristics.

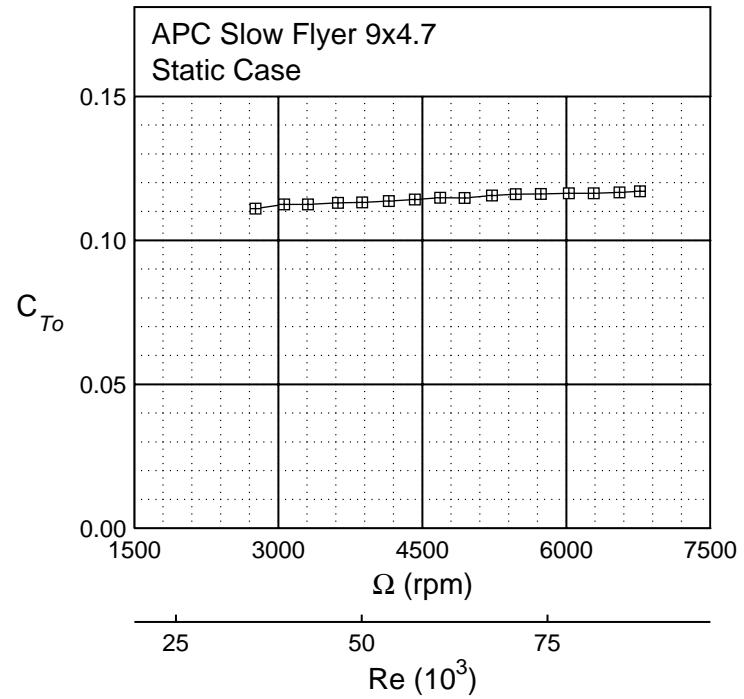


Figure 5.5: APC Slow Flyer 9×4.7 static thrust.

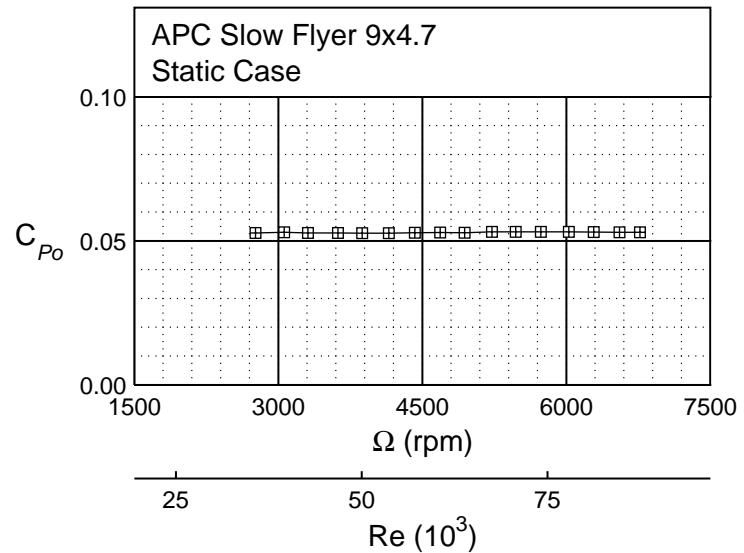
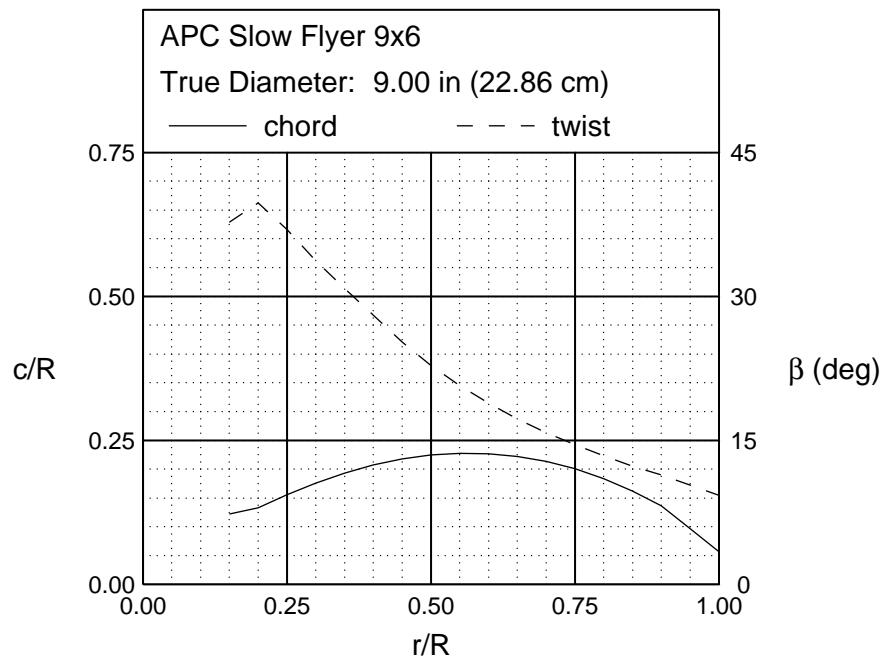


Figure 5.6: APC Slow Flyer 9×4.7 static power.



Front View



Side View

Figure 5.7: APC Slow Flyer 9×6 geometric characteristics.

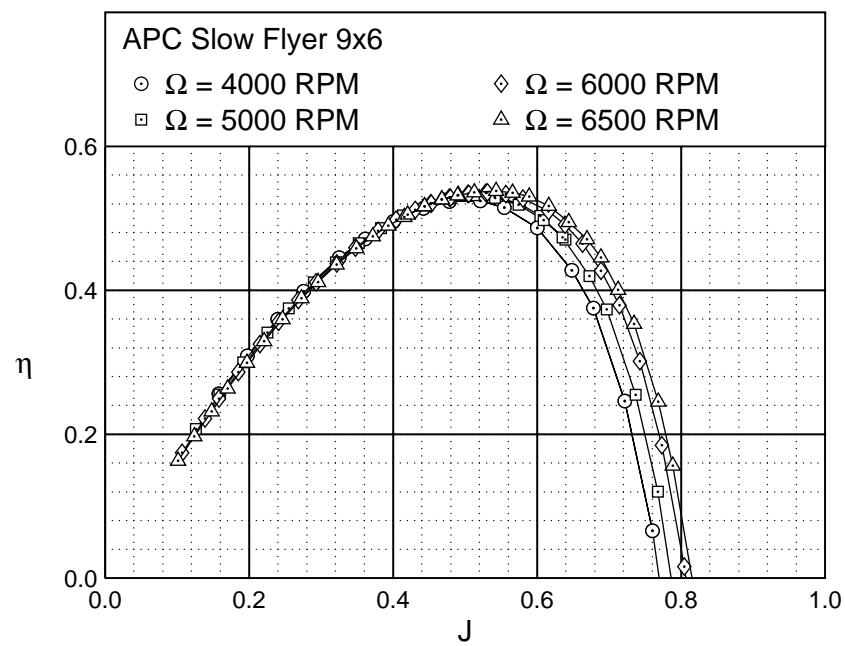


Figure 5.8: APC Slow Flyer 9×6 efficiency curves.

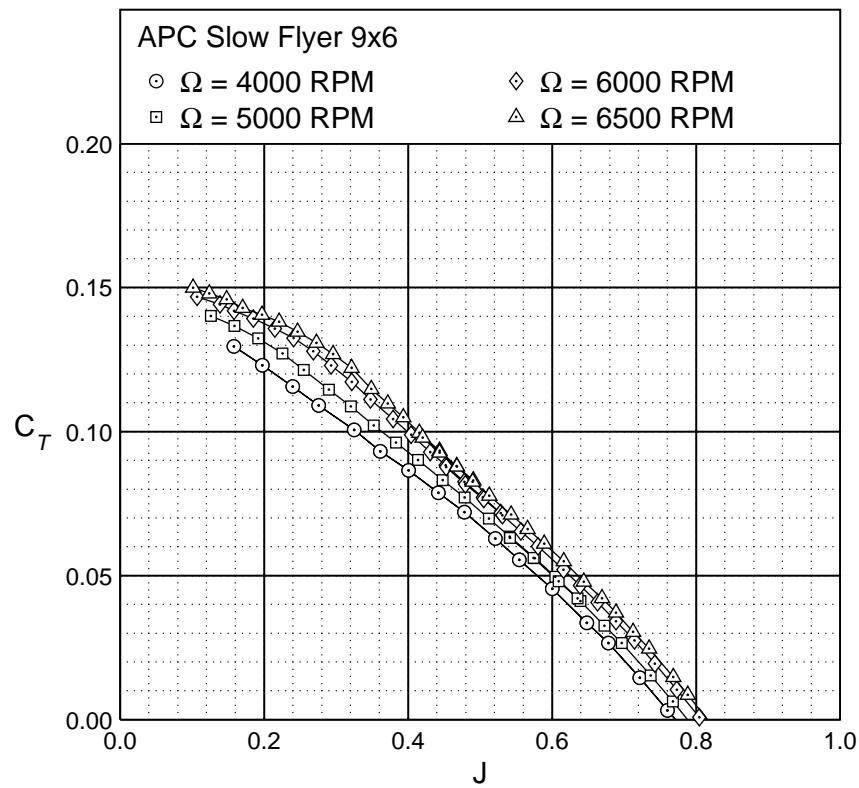


Figure 5.9: APC Slow Flyer 9×6 thrust characteristics.

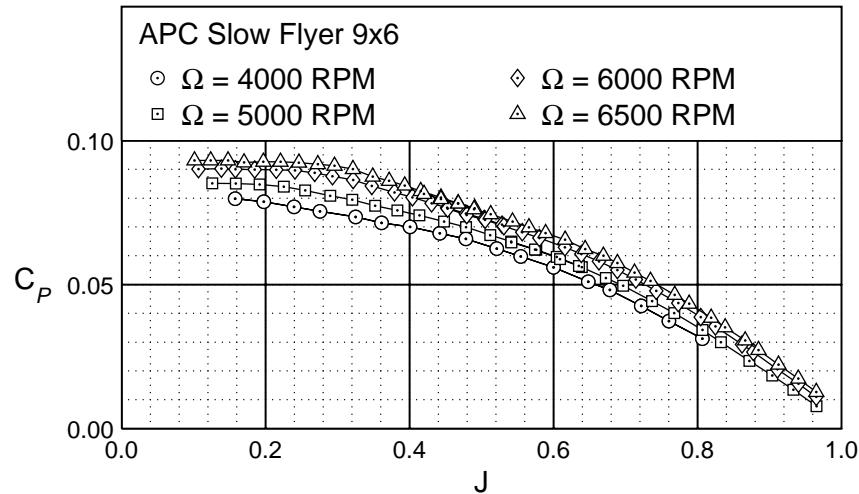


Figure 5.10: APC Slow Flyer 9×6 power characteristics.

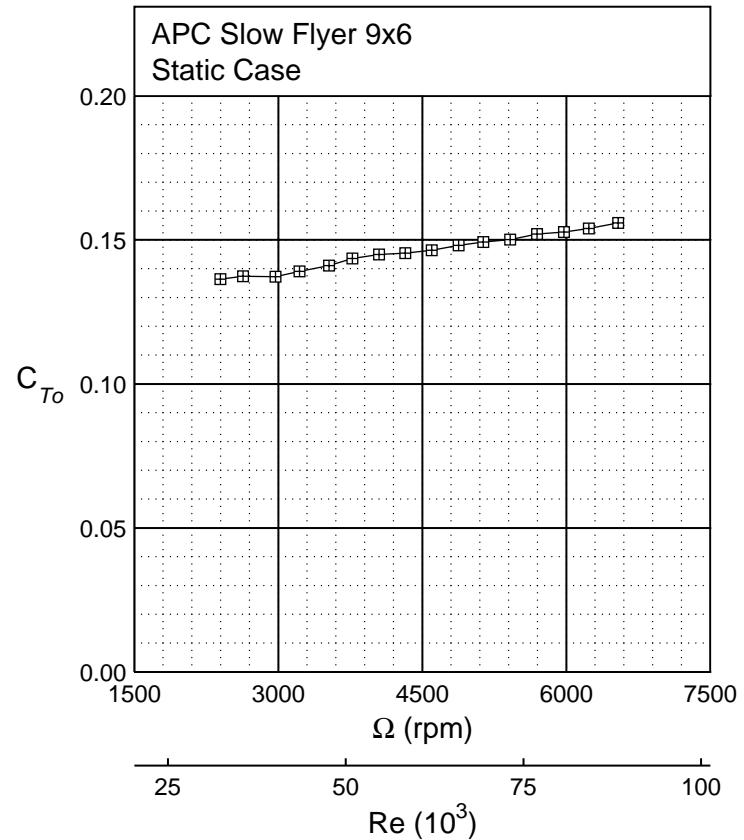


Figure 5.11: APC Slow Flyer 9×6 static thrust.

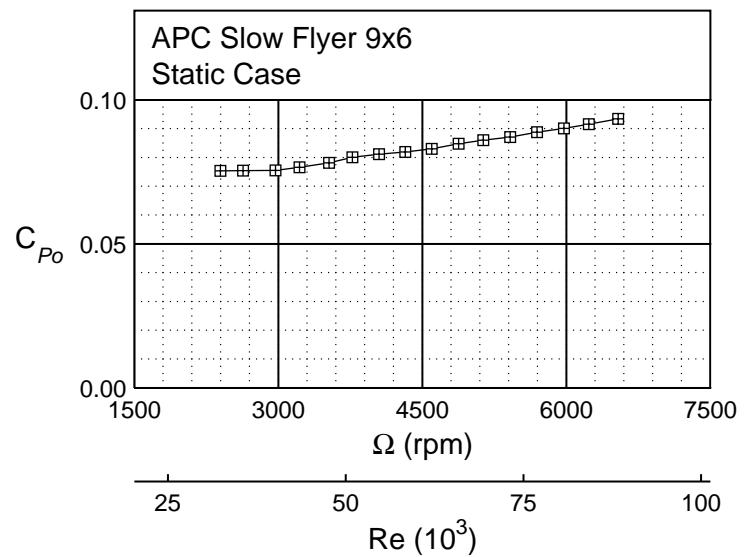
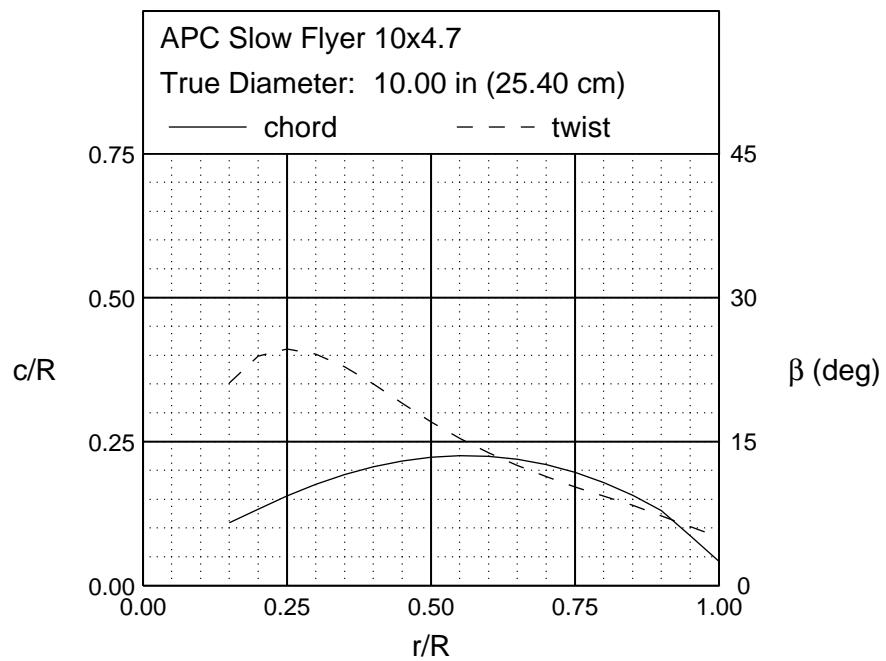


Figure 5.12: APC Slow Flyer 9×6 static power.



Front View



Side View

Figure 5.13: APC Slow Flyer 10×4.7 geometric characteristics.

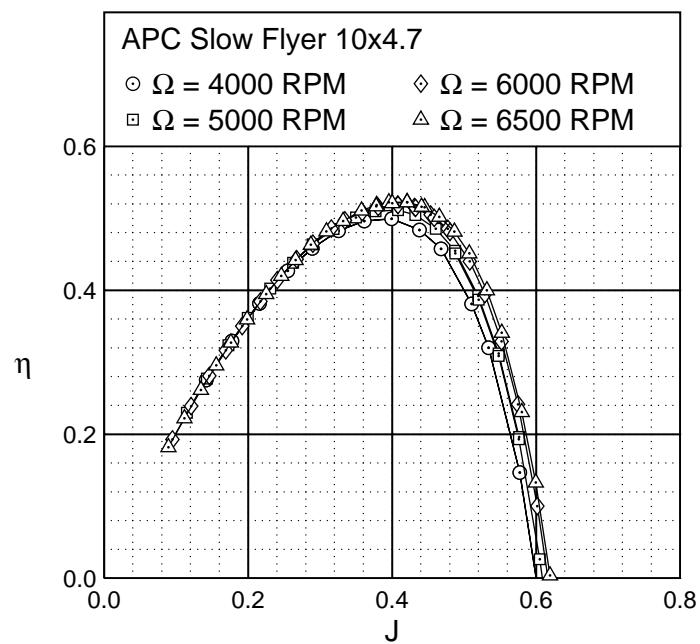


Figure 5.14: APC Slow Flyer 10×4.7 efficiency curves.

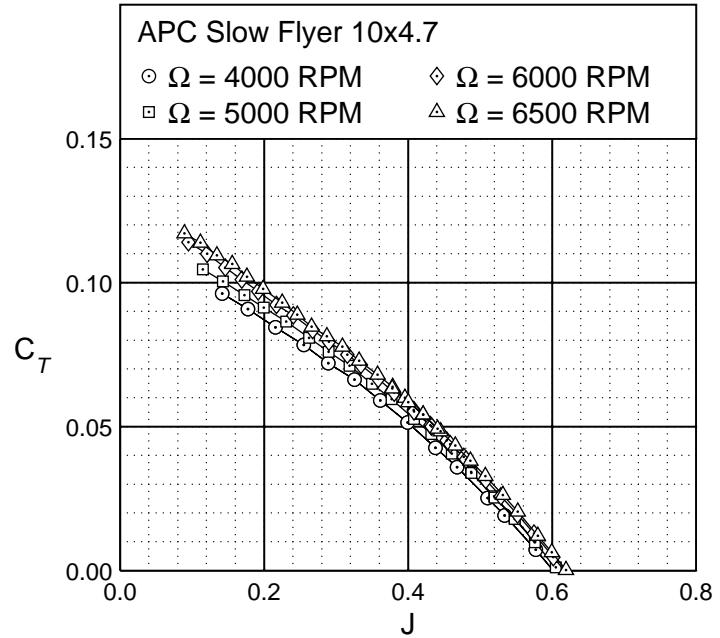


Figure 5.15: APC Slow Flyer 10×4.7 thrust characteristics.

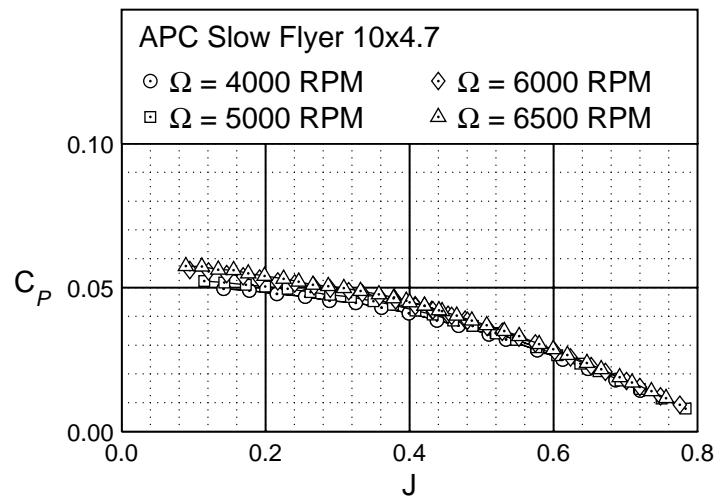


Figure 5.16: APC Slow Flyer 10×4.7 power characteristics.

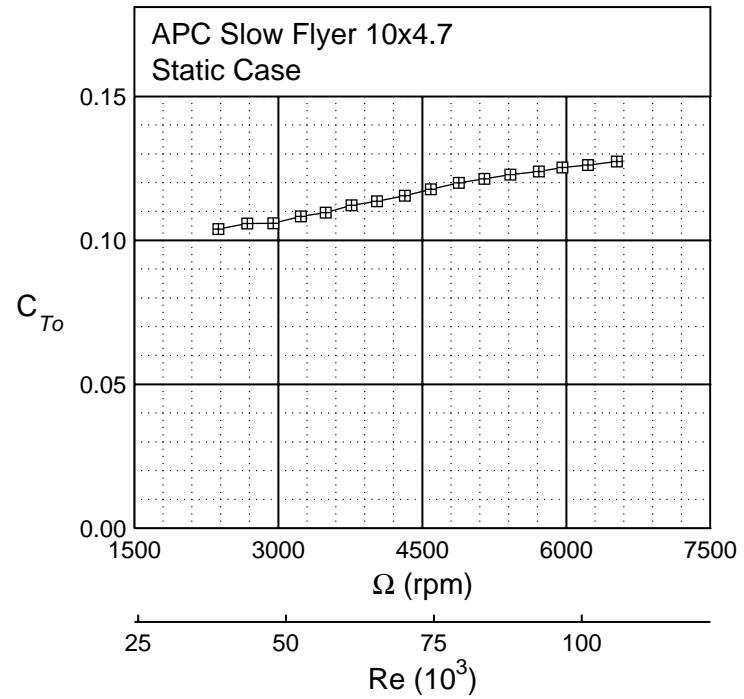


Figure 5.17: APC Slow Flyer 10×4.7 static thrust.

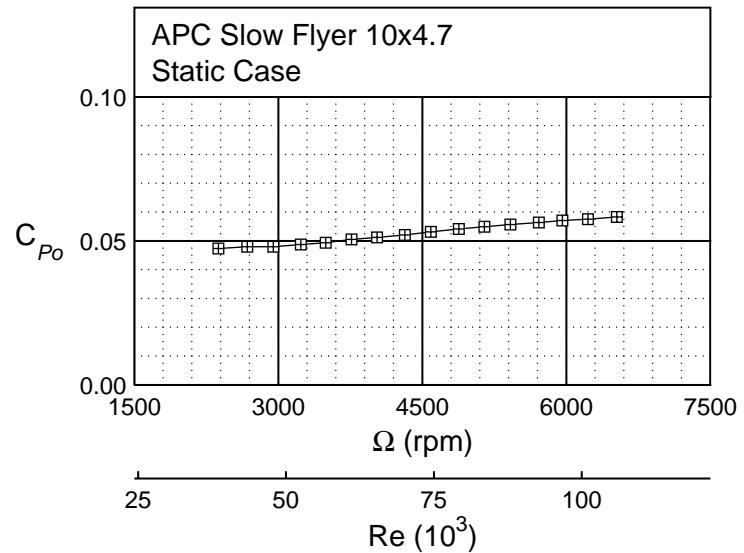
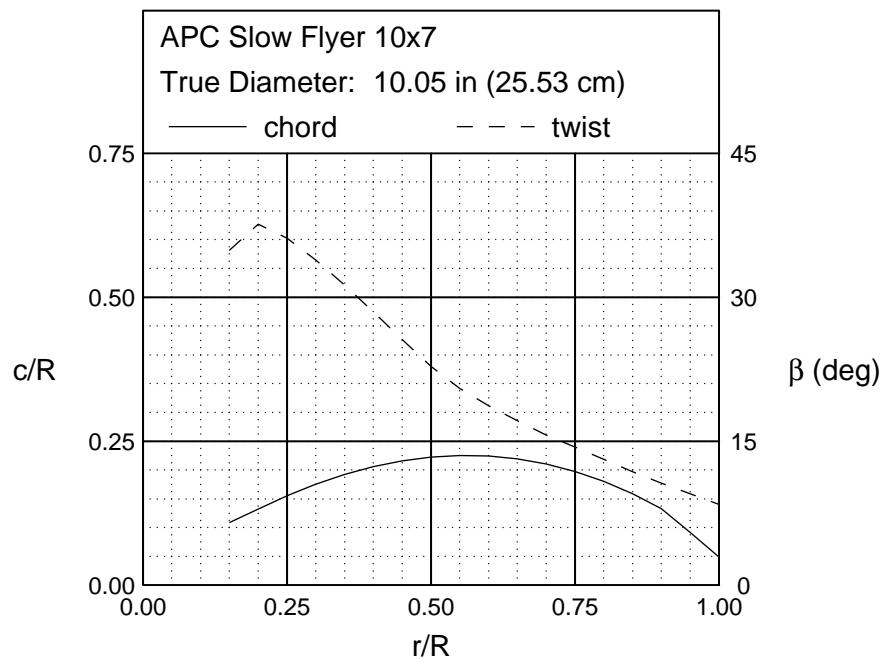


Figure 5.18: APC Slow Flyer 10×4.7 static power.



Front View



Side View

Figure 5.19: APC Slow Flyer 10×7 geometric characteristics.

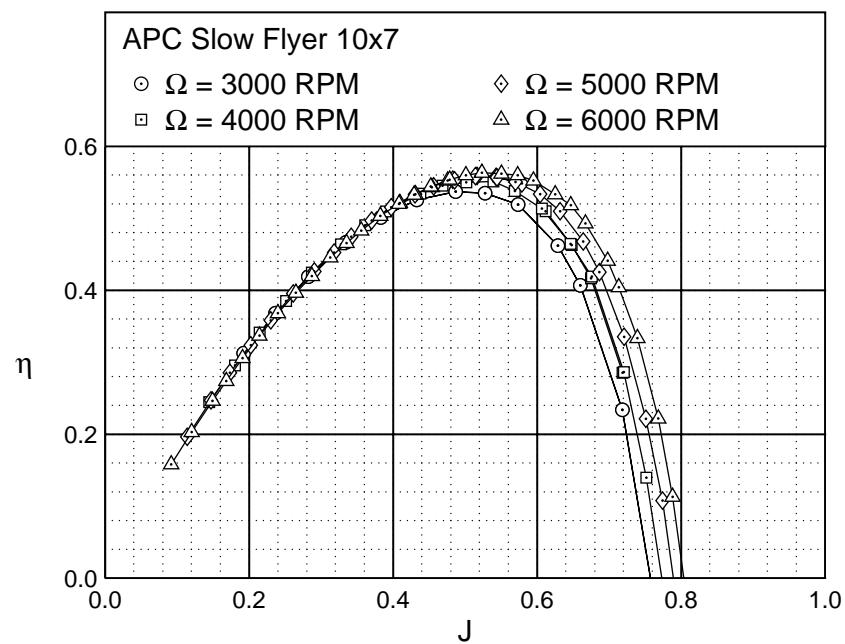


Figure 5.20: APC Slow Flyer 10×7 efficiency curves.

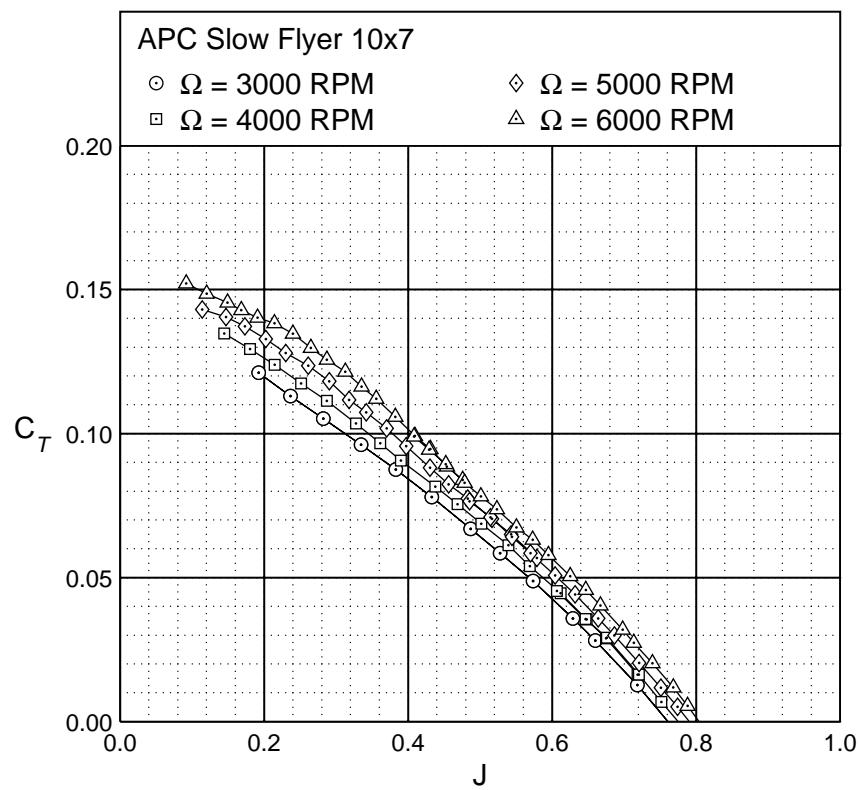


Figure 5.21: APC Slow Flyer 10×7 thrust characteristics.

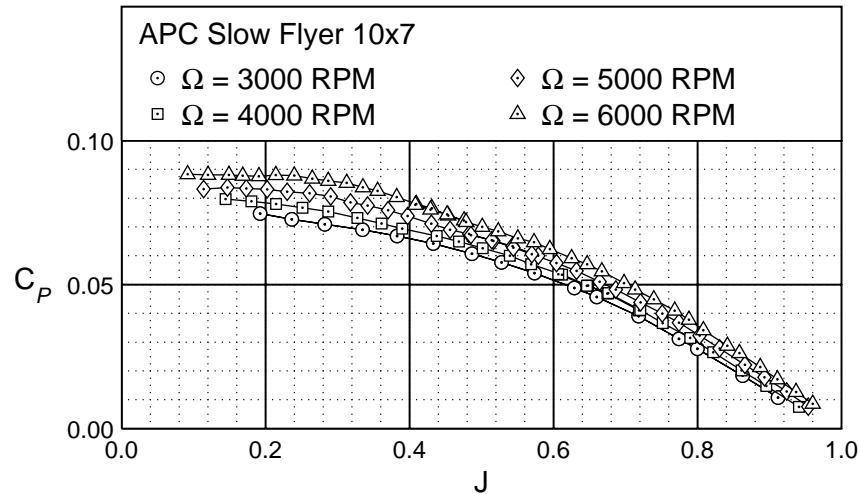


Figure 5.22: APC Slow Flyer 10×7 power characteristics.

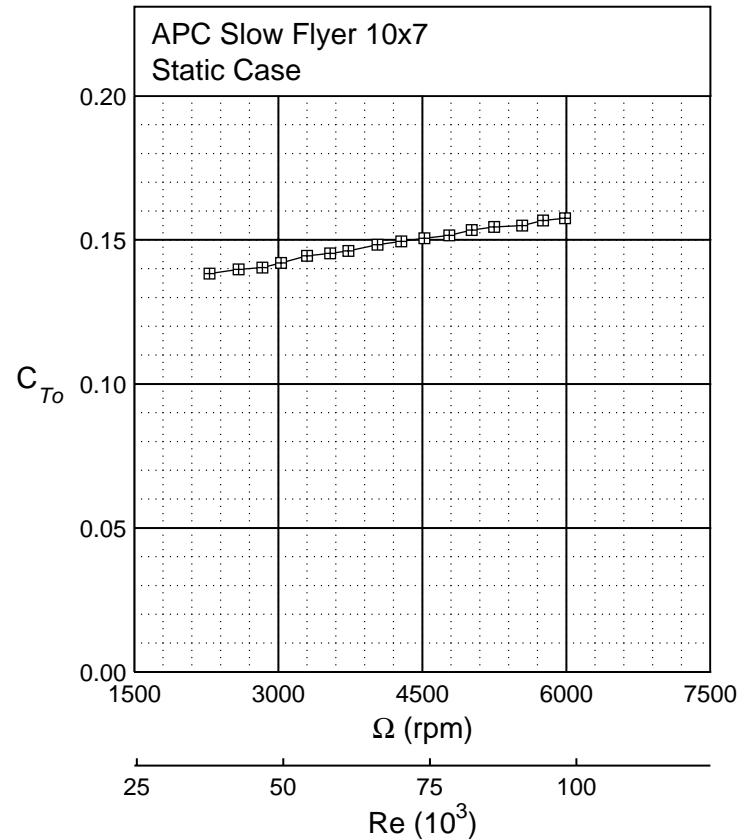


Figure 5.23: APC Slow Flyer 10×7 static thrust.

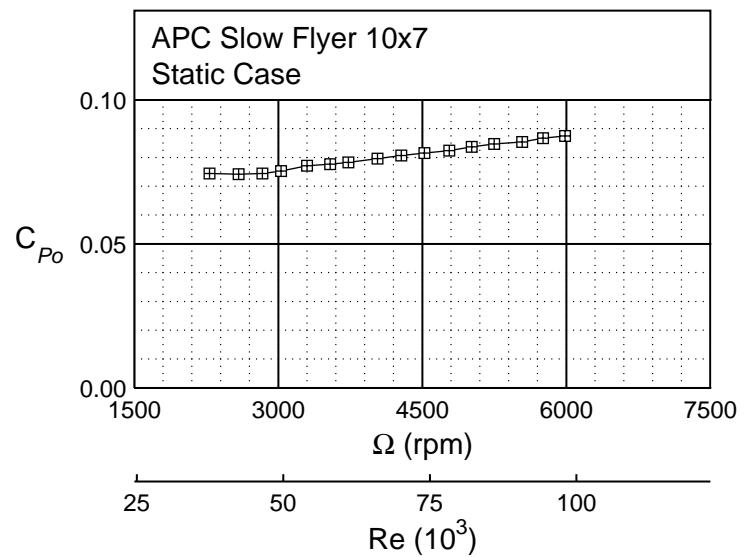
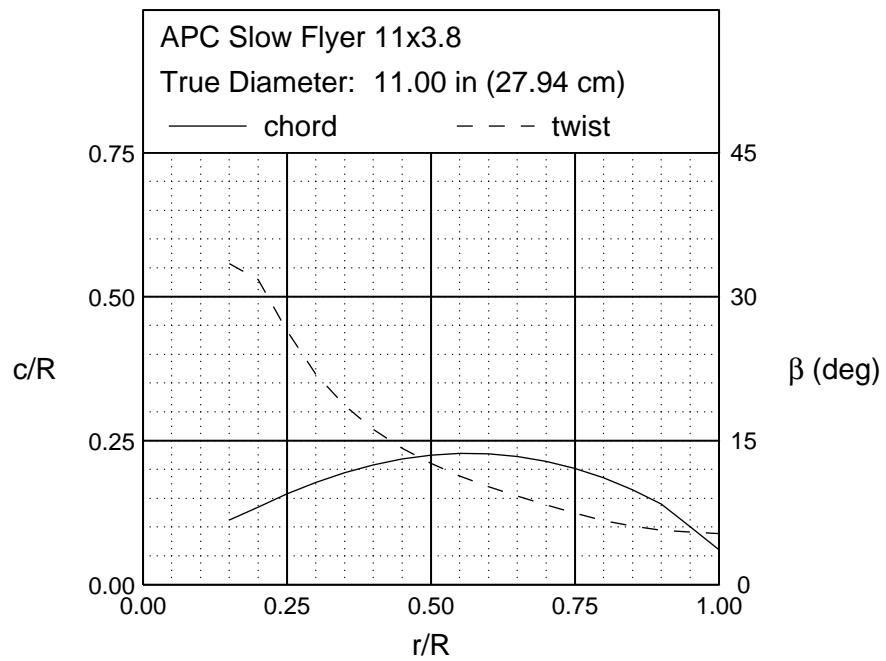


Figure 5.24: APC Slow Flyer 10×7 static power.



Front View



Side View

Figure 5.25: APC Slow Flyer 11×3.8 geometric characteristics.

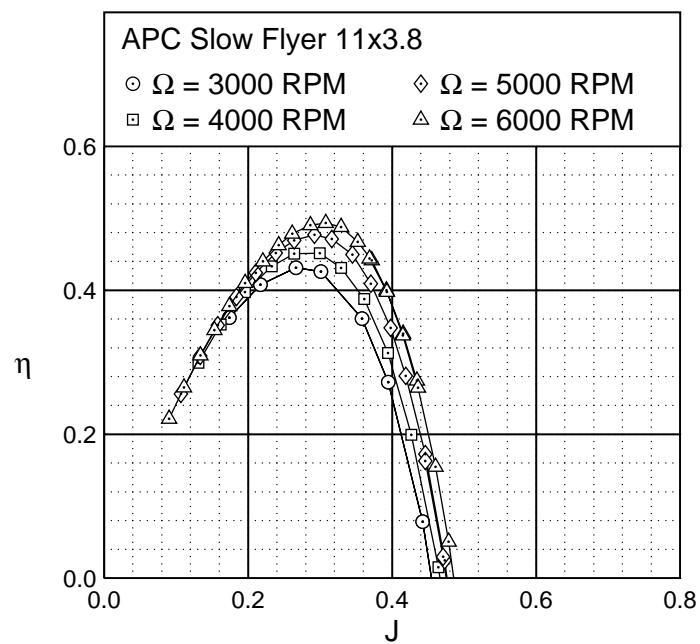


Figure 5.26: APC Slow Flyer 11×3.8 efficiency curves.

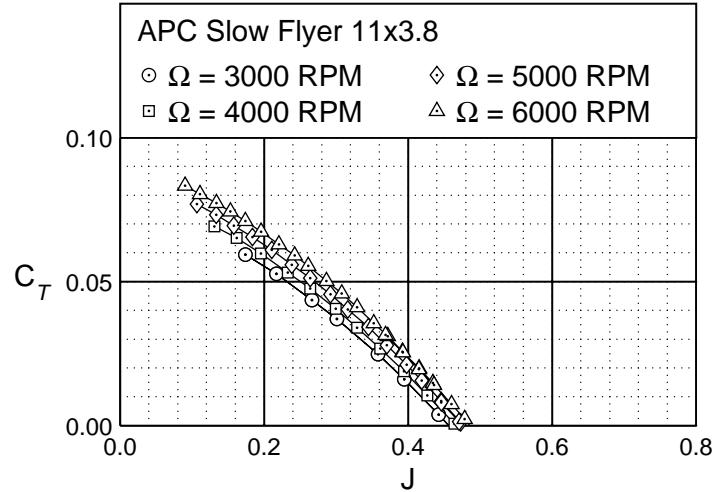


Figure 5.27: APC Slow Flyer 11×3.8 thrust characteristics.

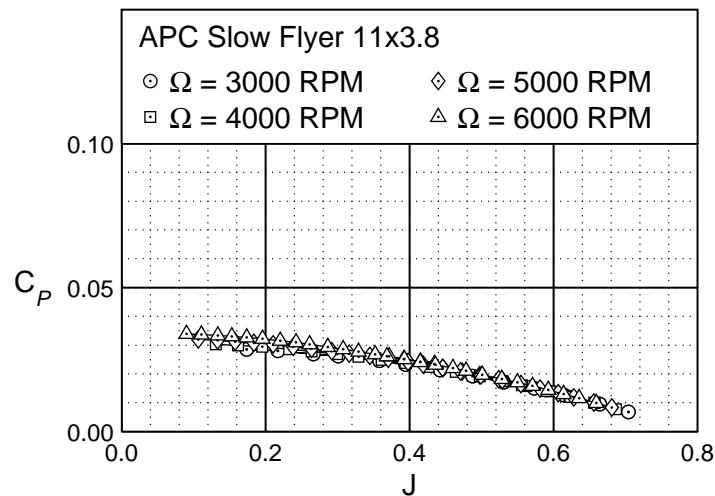


Figure 5.28: APC Slow Flyer 11×3.8 power characteristics.

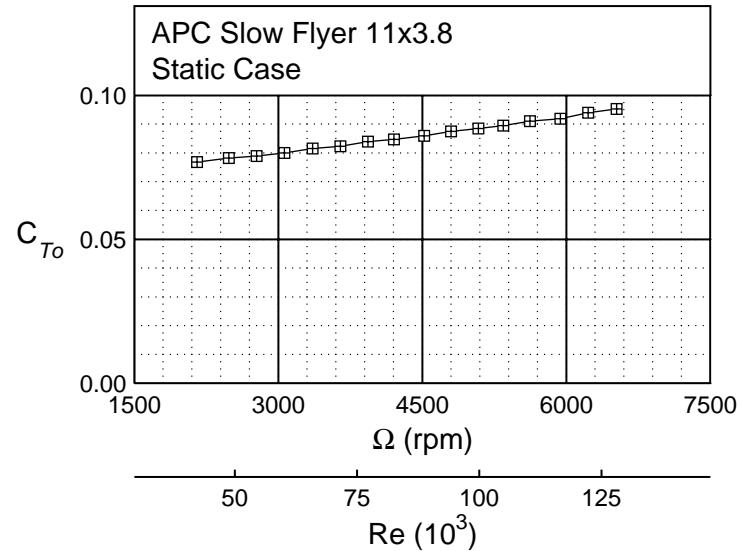


Figure 5.29: APC Slow Flyer 11×3.8 static thrust.

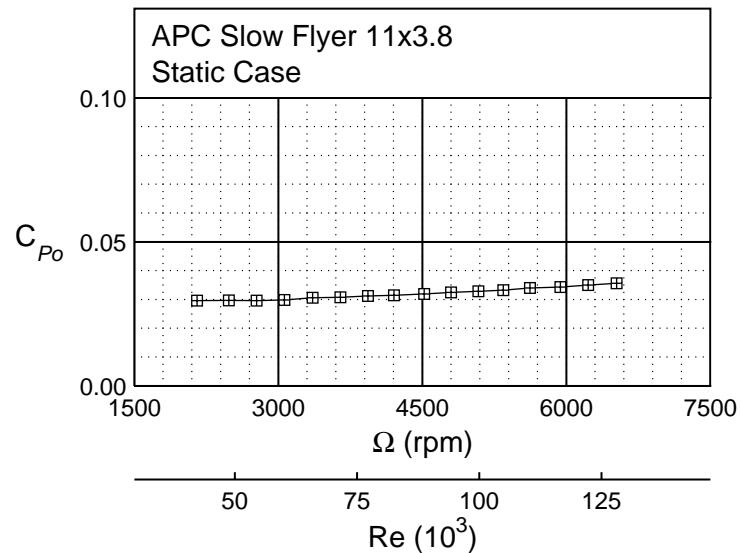
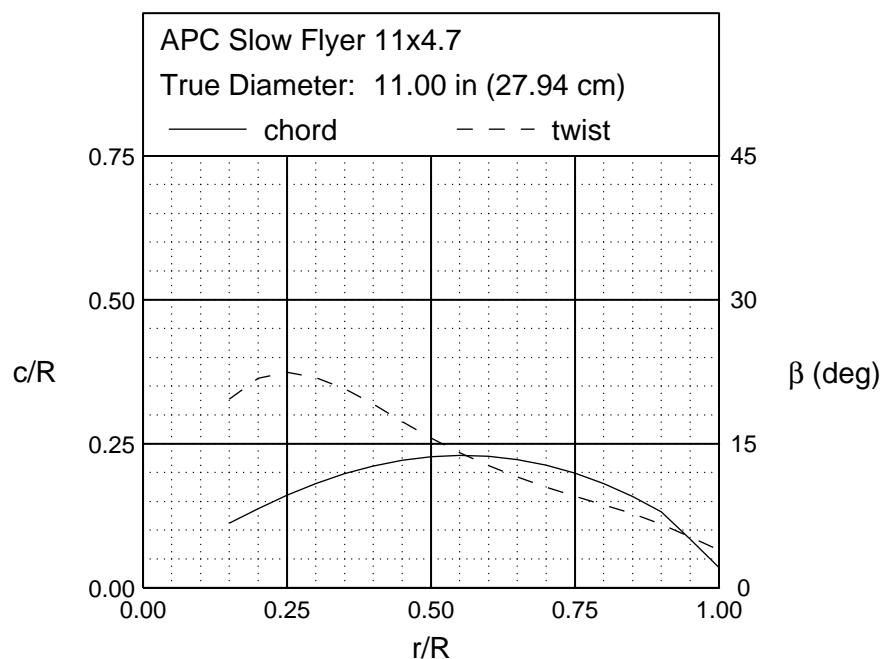


Figure 5.30: APC Slow Flyer 11×3.8 static power.



Front View



Side View

Figure 5.31: APC Slow Flyer 11×4.7 geometric characteristics.

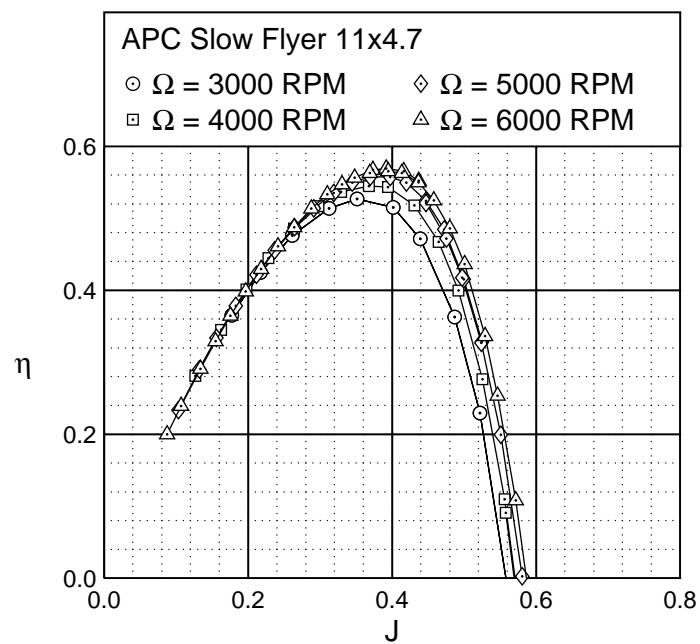


Figure 5.32: APC Slow Flyer 11×4.7 efficiency curves.

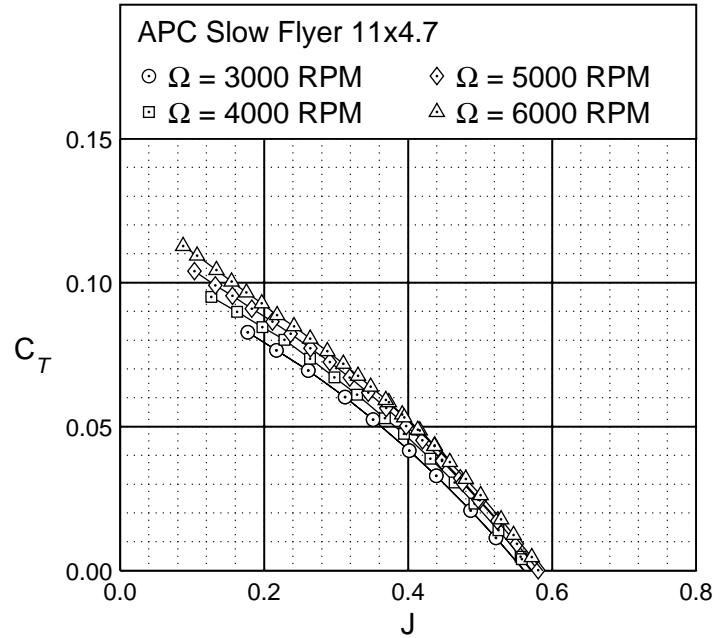


Figure 5.33: APC Slow Flyer 11×4.7 thrust characteristics.

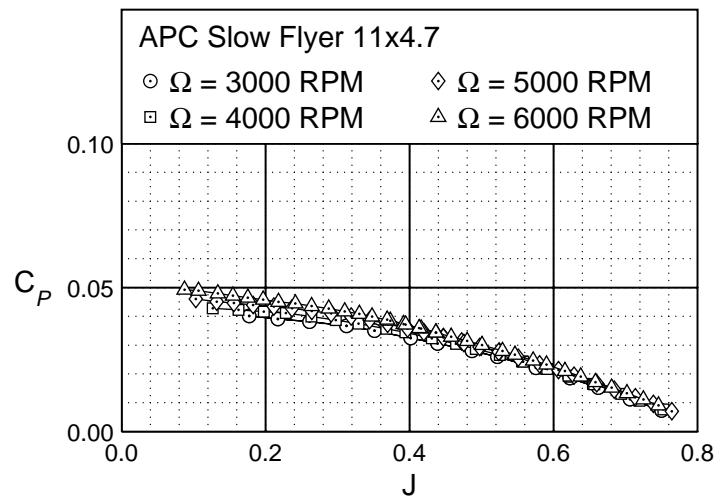


Figure 5.34: APC Slow Flyer 11×4.7 power characteristics.

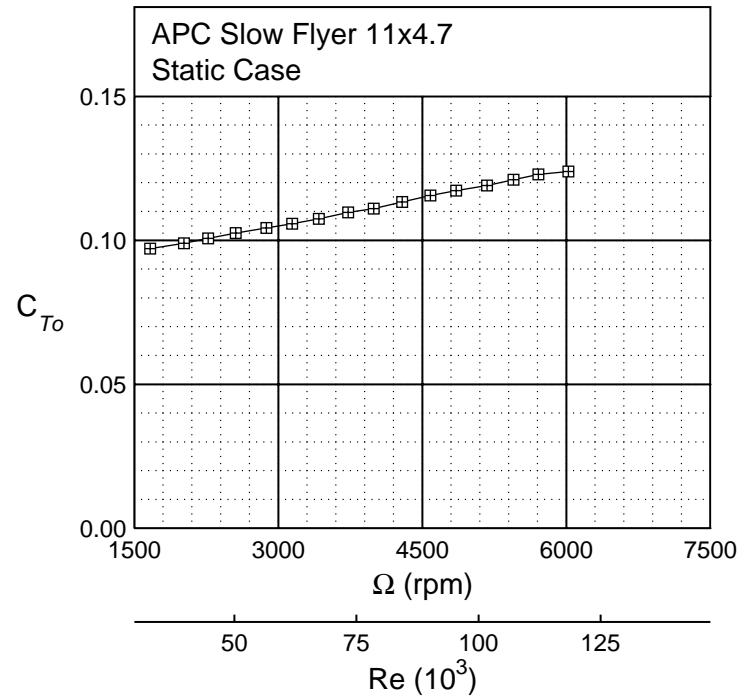


Figure 5.35: APC Slow Flyer 11×4.7 static thrust.

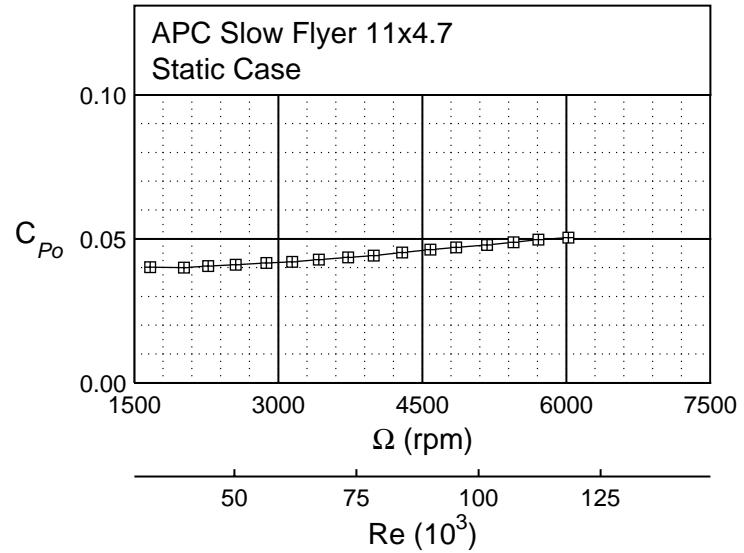
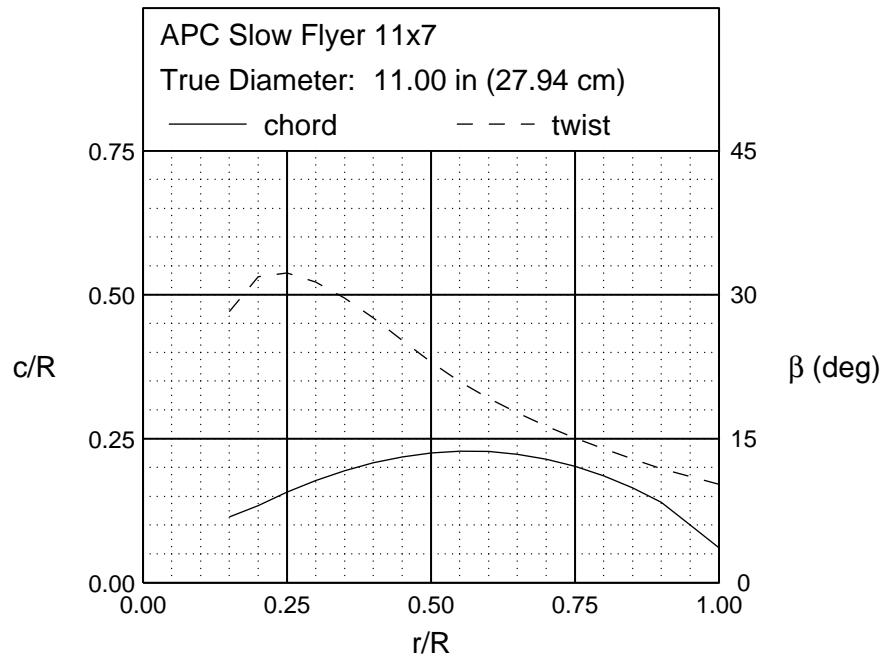


Figure 5.36: APC Slow Flyer 11×4.7 static power.



Front View



Side View

Figure 5.37: APC Slow Flyer 11×7 geometric characteristics.

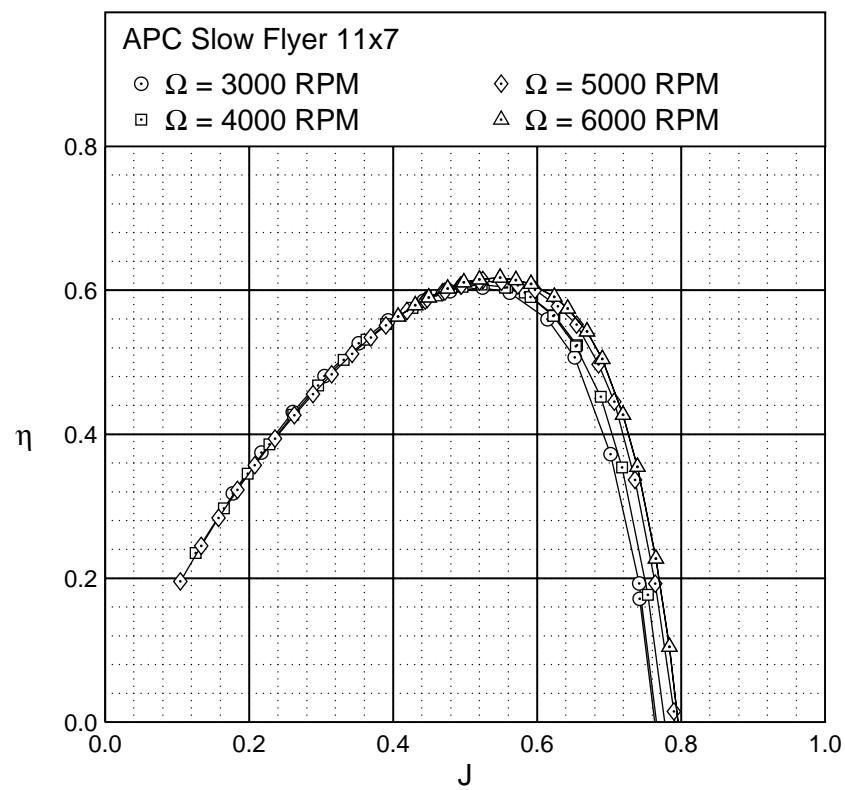


Figure 5.38: APC Slow Flyer 11×7 efficiency curves.

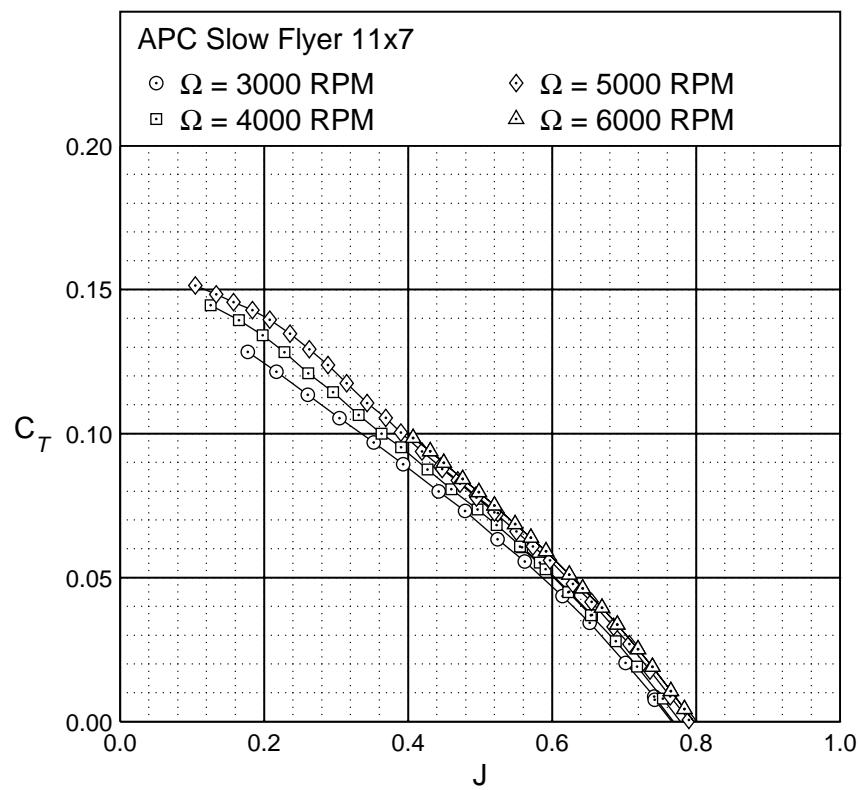


Figure 5.39: APC Slow Flyer 11×7 thrust characteristics.

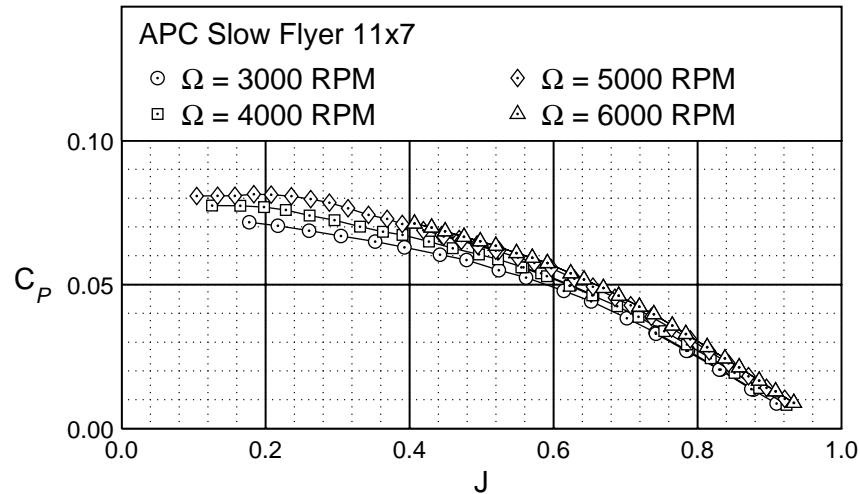


Figure 5.40: APC Slow Flyer 11×7 power characteristics.

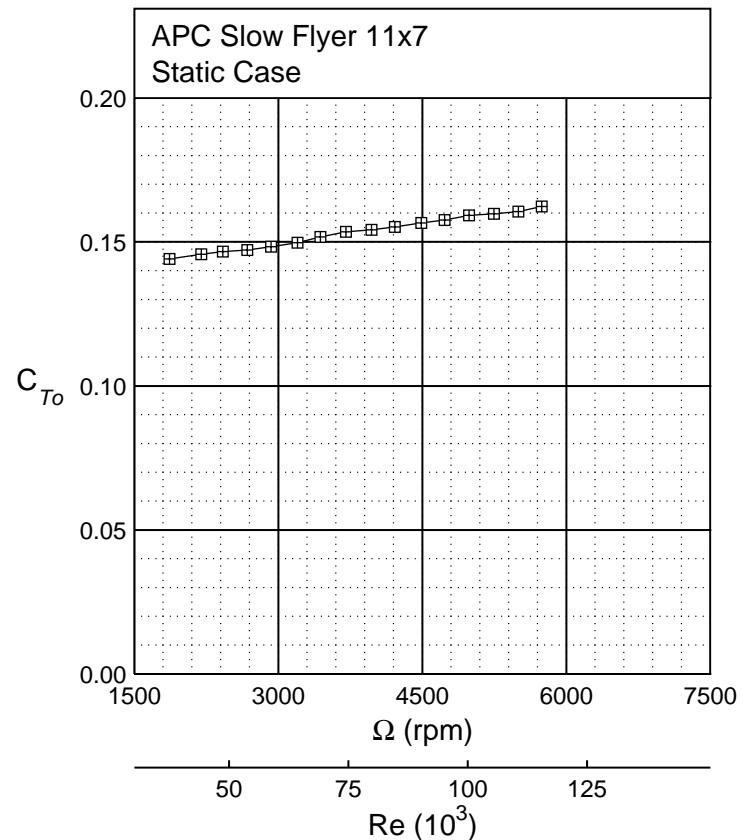


Figure 5.41: APC Slow Flyer 11×7 static thrust.

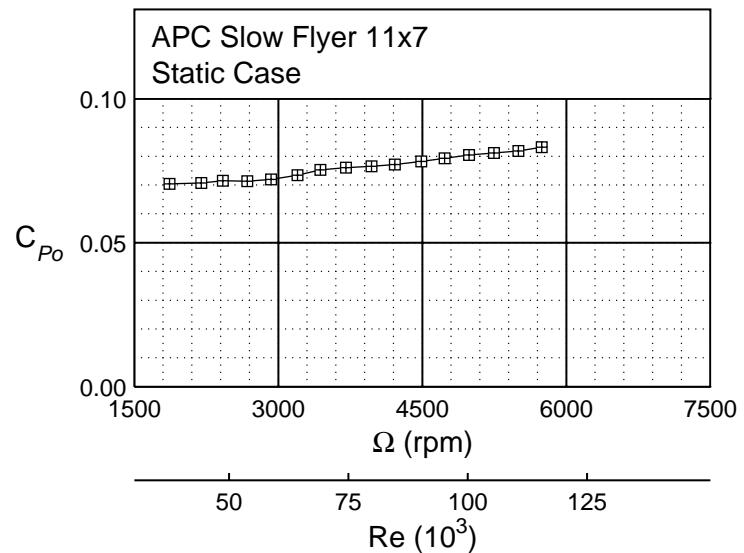
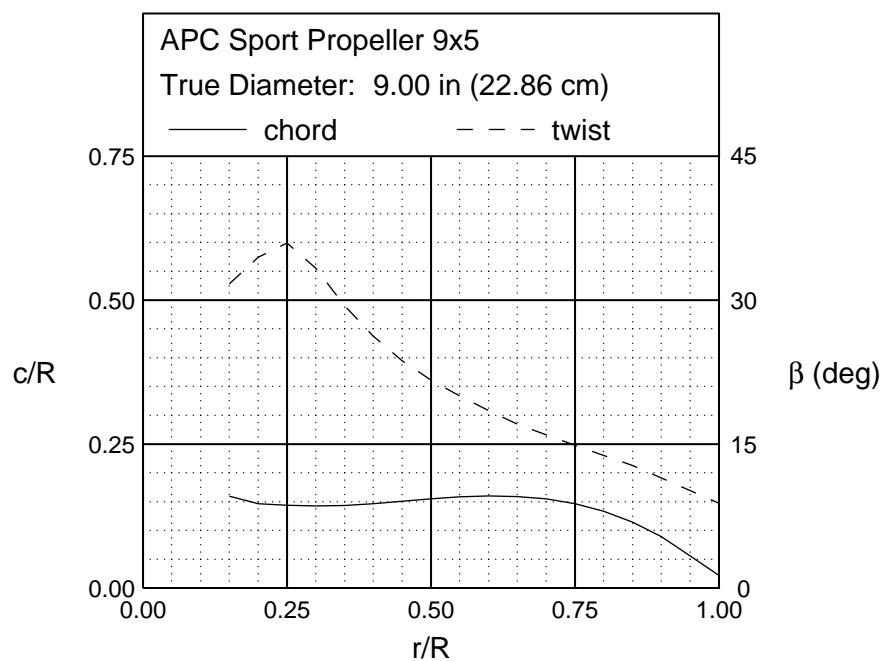


Figure 5.42: APC Slow Flyer 11×7 static power.



Front View



Side View

Figure 5.43: APC Sport Prop 9×5 geometric characteristics.

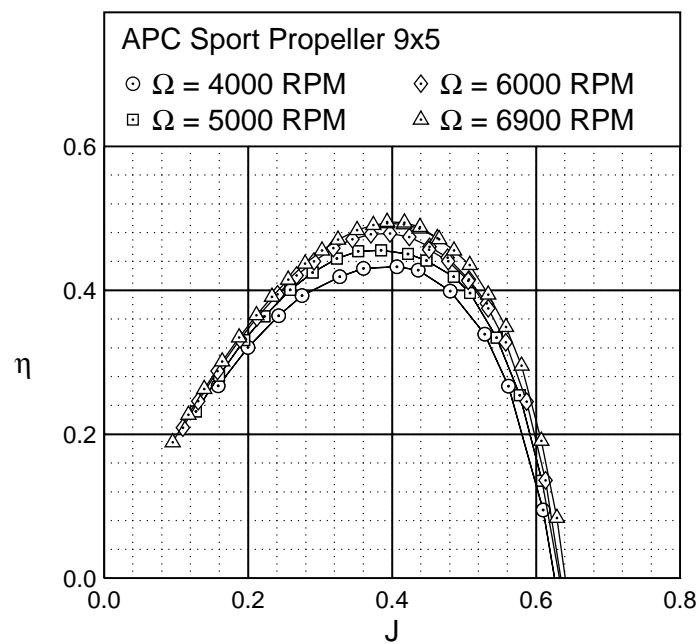


Figure 5.44: APC Sport Prop 9×5 efficiency curves.

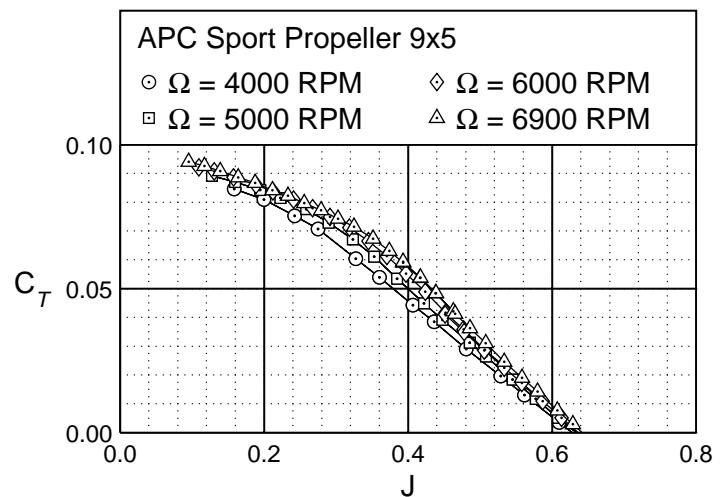


Figure 5.45: APC Sport Prop 9×5 thrust characteristics.

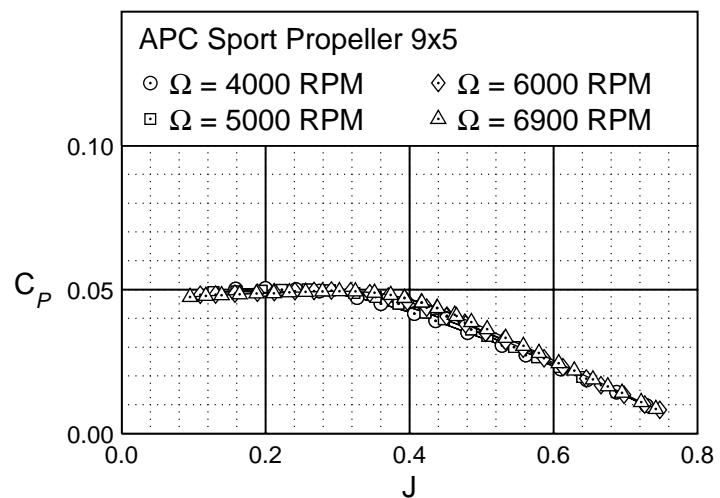


Figure 5.46: APC Sport Prop 9×5 power characteristics.

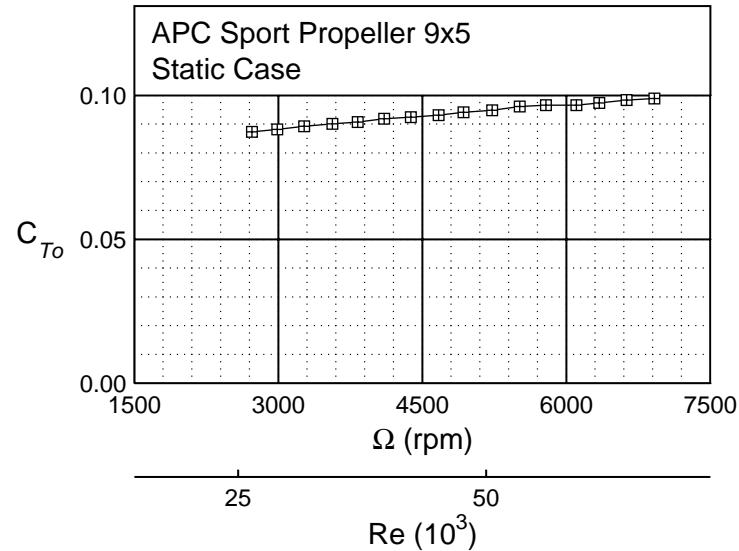


Figure 5.47: APC Sport Prop 9×5 static thrust.

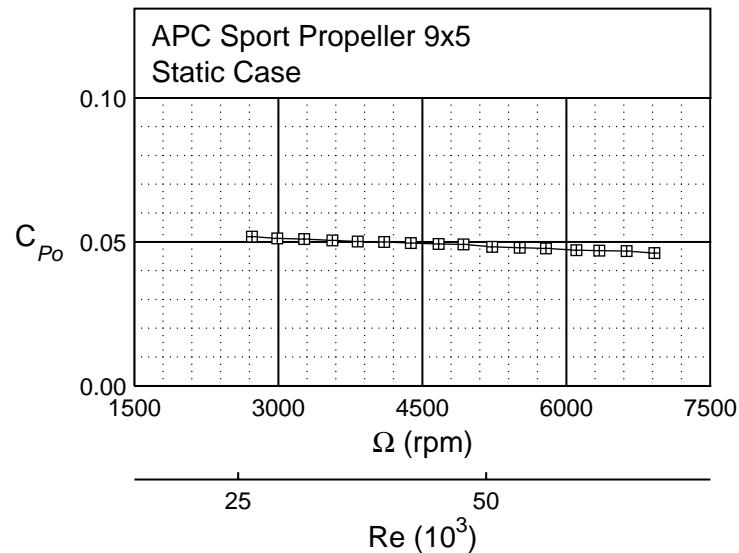
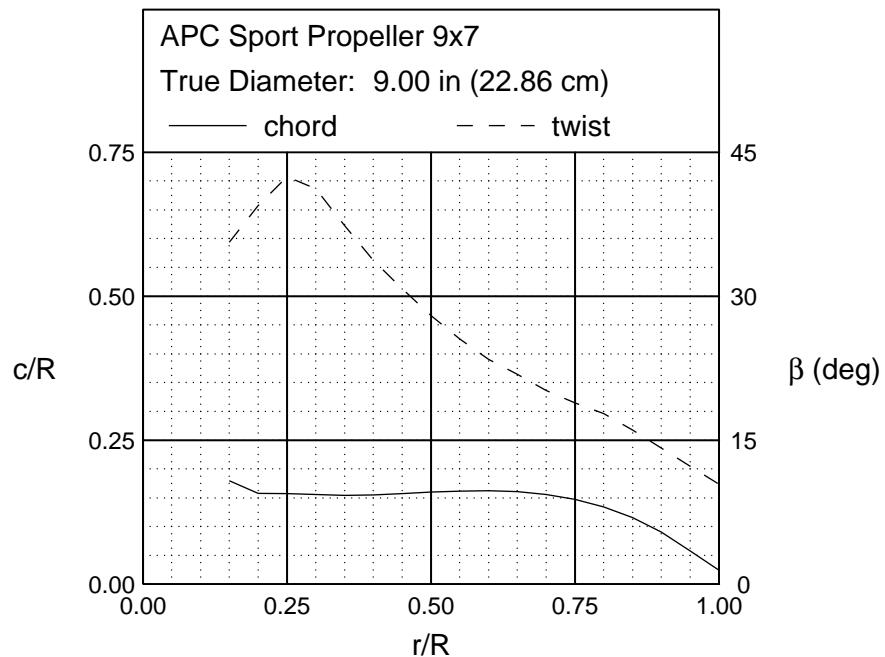


Figure 5.48: APC Sport Prop 9×5 static power.



Front View



Side View

Figure 5.49: APC Sport Prop 9×7 geometric characteristics.

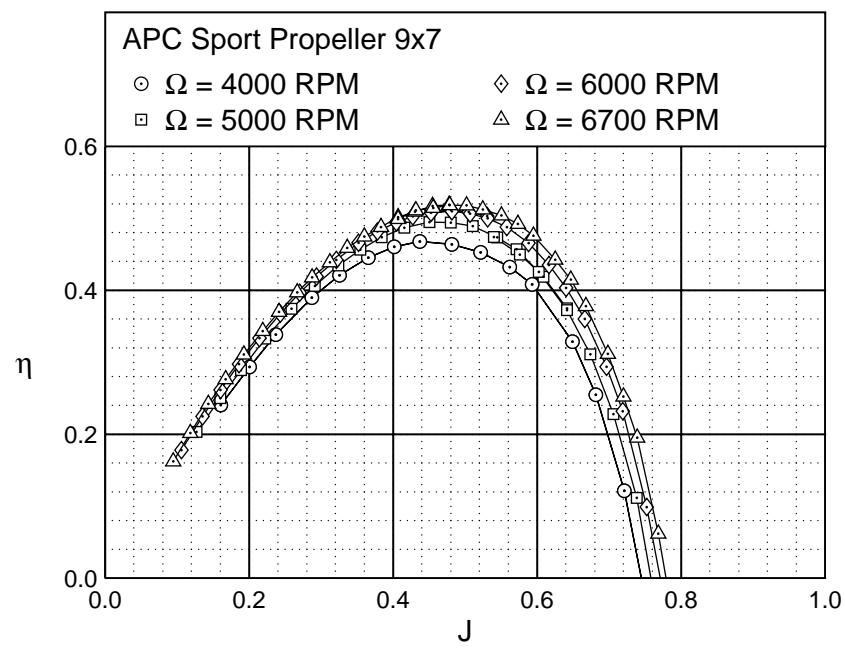


Figure 5.50: APC Sport Prop 9×7 efficiency curves.

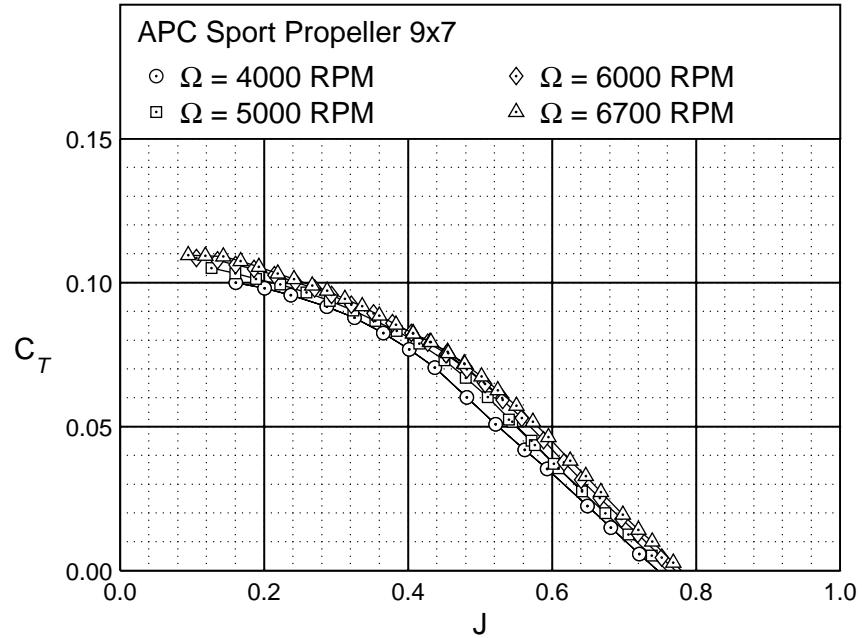


Figure 5.51: APC Sport Prop 9×7 thrust characteristics.

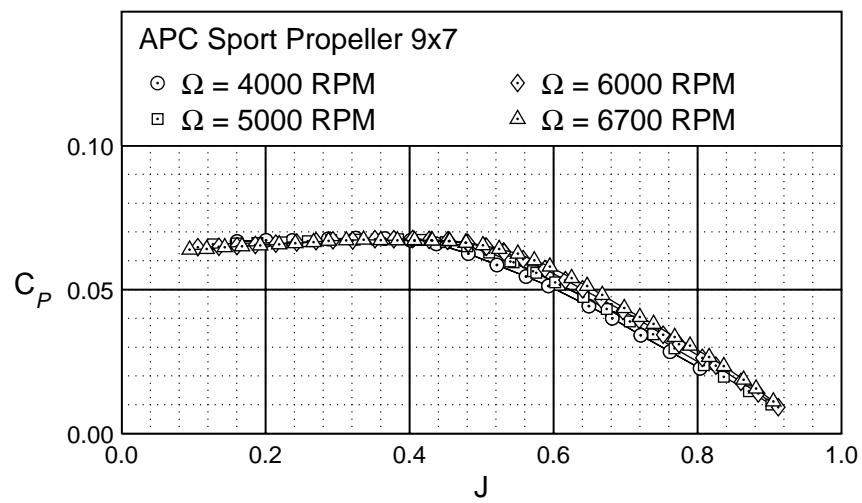


Figure 5.52: APC Sport Prop 9×7 power characteristics.

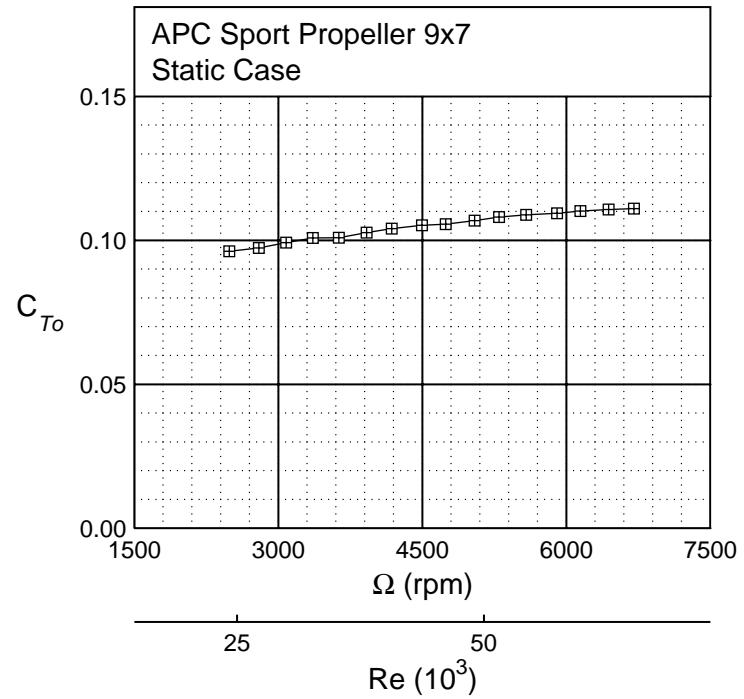


Figure 5.53: APC Sport Prop 9×7 static thrust.

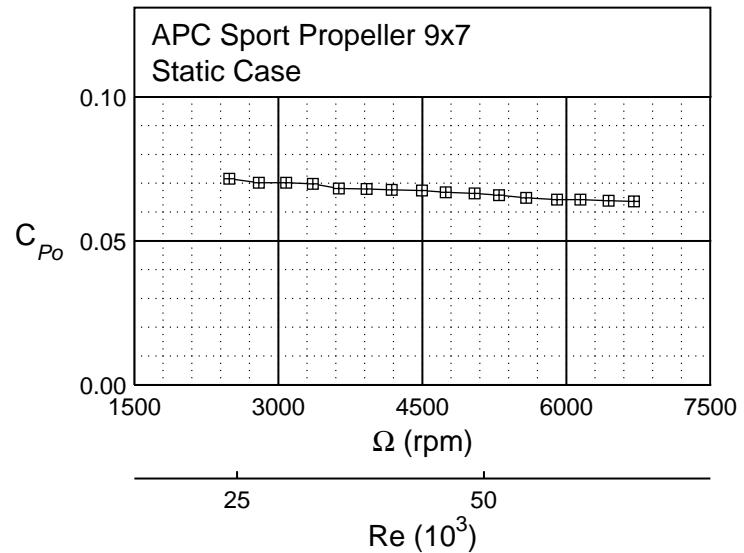
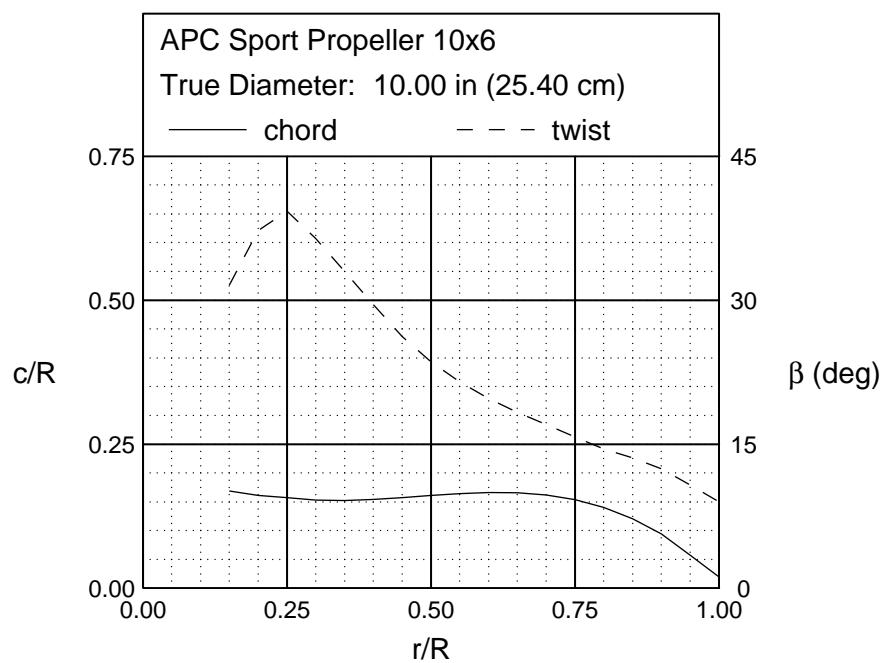


Figure 5.54: APC Sport Prop 9×7 static power.



Front View



Side View

Figure 5.55: APC Sport Prop 10×6 geometric characteristics.

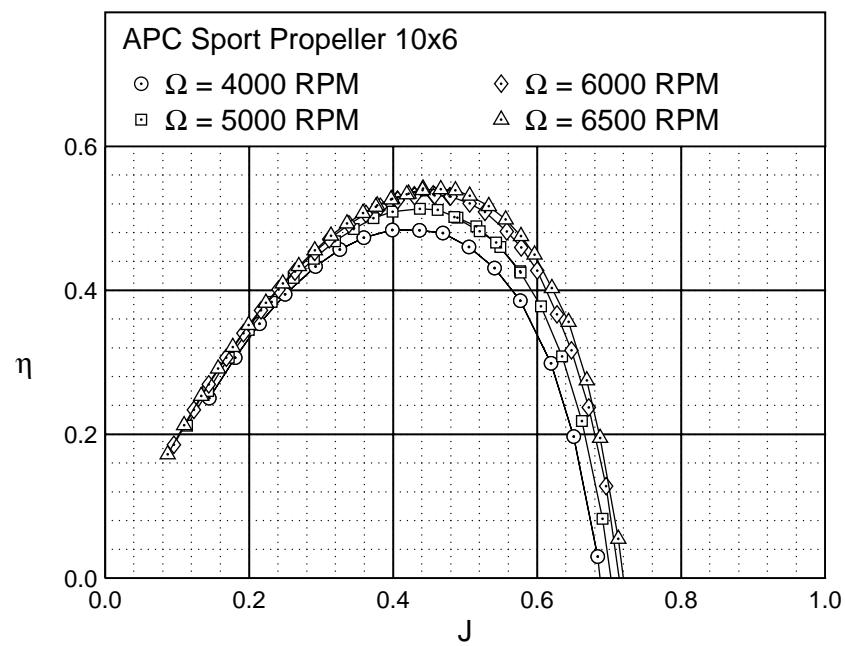


Figure 5.56: APC Sport Prop 10×6 efficiency curves.

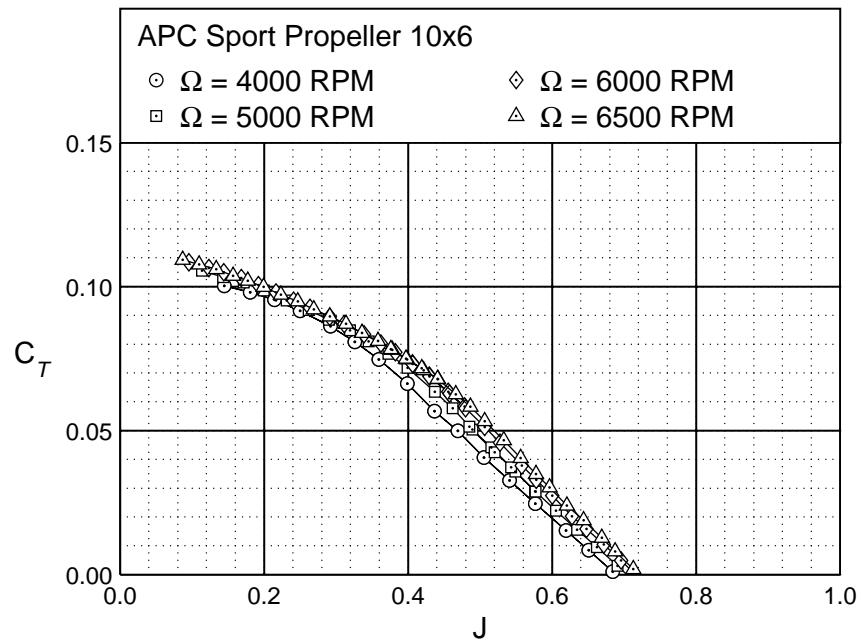


Figure 5.57: APC Sport Prop 10×6 thrust characteristics.

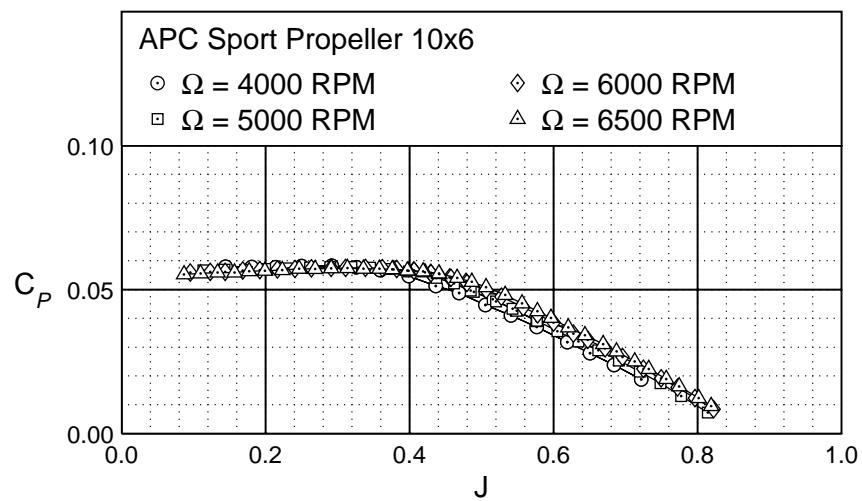


Figure 5.58: APC Sport Prop 10×6 power characteristics.

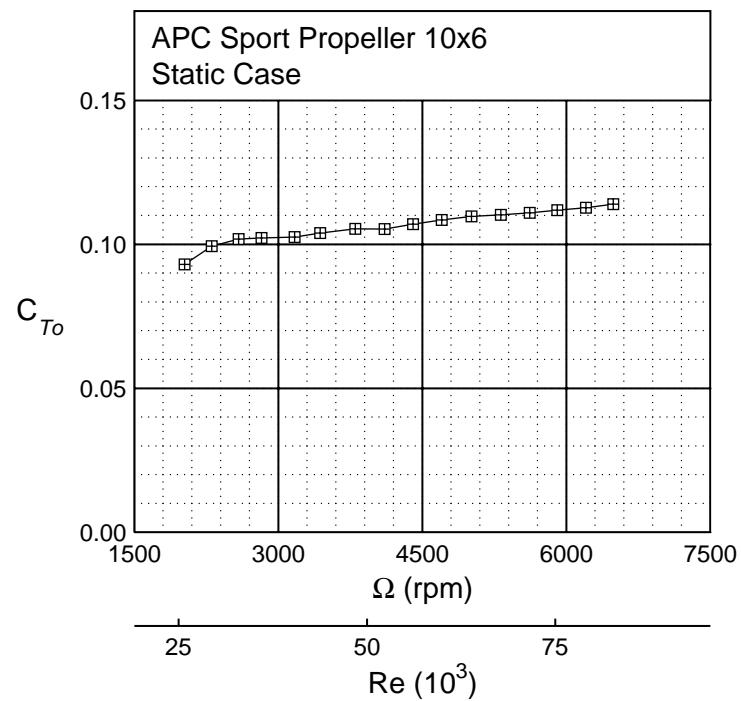


Figure 5.59: APC Sport Prop 10×6 static thrust.

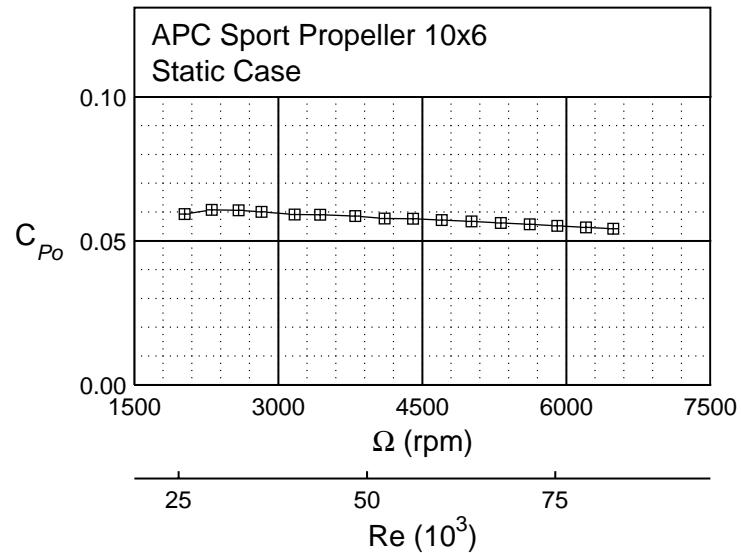
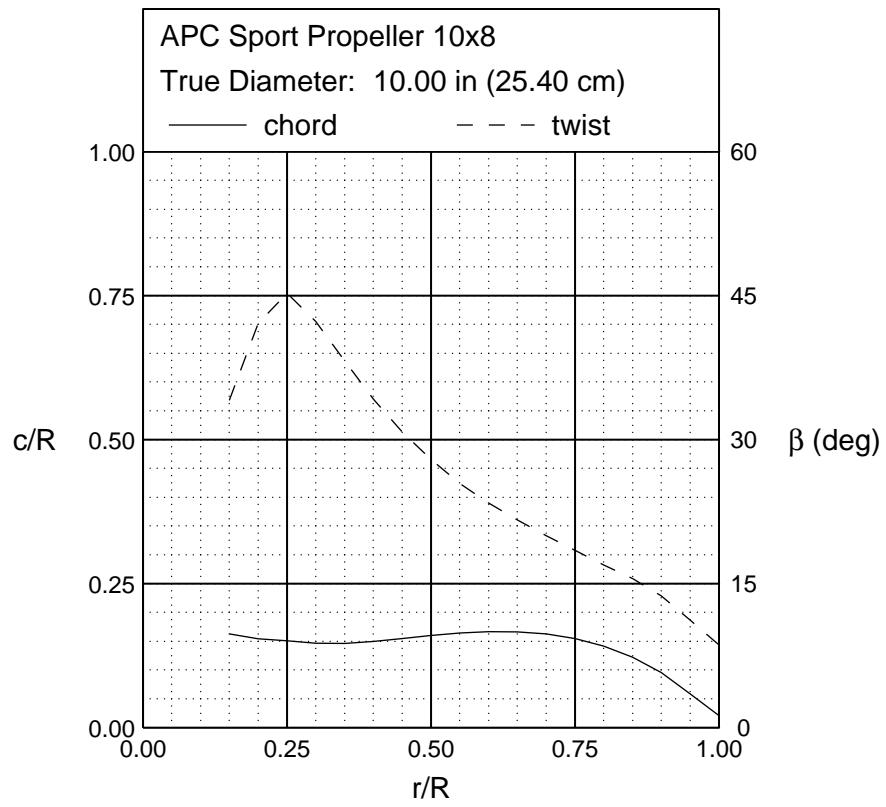


Figure 5.60: APC Sport Prop 10×6 static power.



Front View



Side View

Figure 5.61: APC Sport Prop 10×8 geometric characteristics.

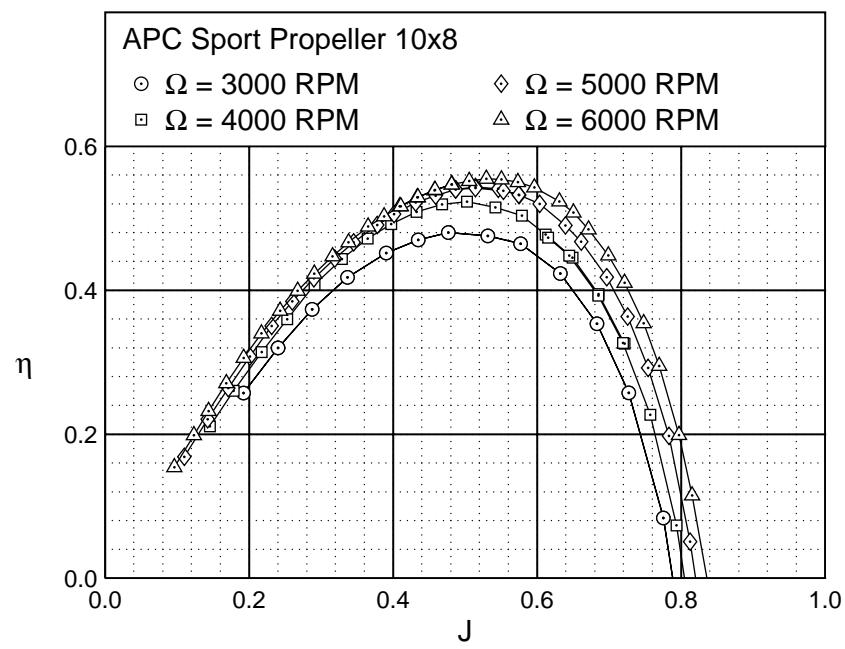


Figure 5.62: APC Sport Prop 10×8 efficiency curves.

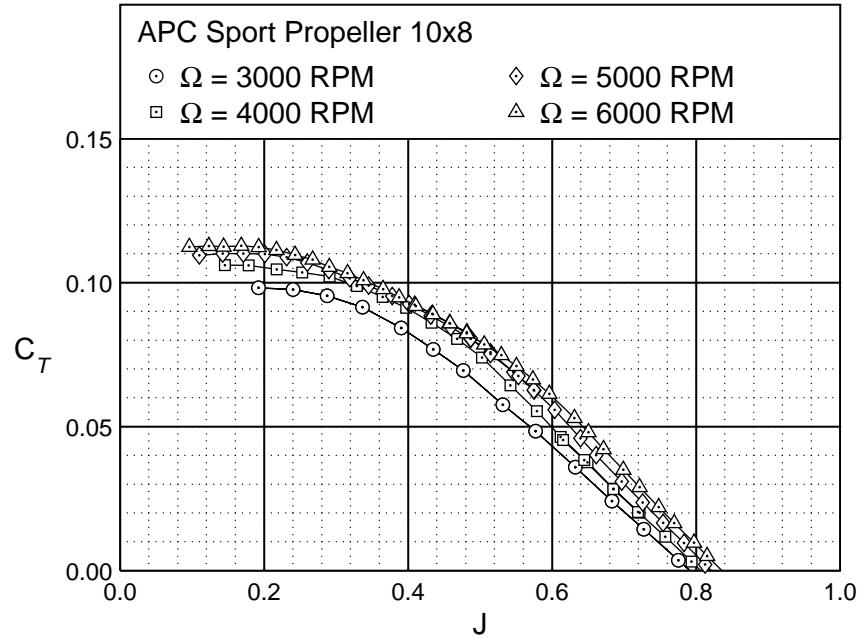


Figure 5.63: APC Sport Prop 10×8 thrust characteristics.

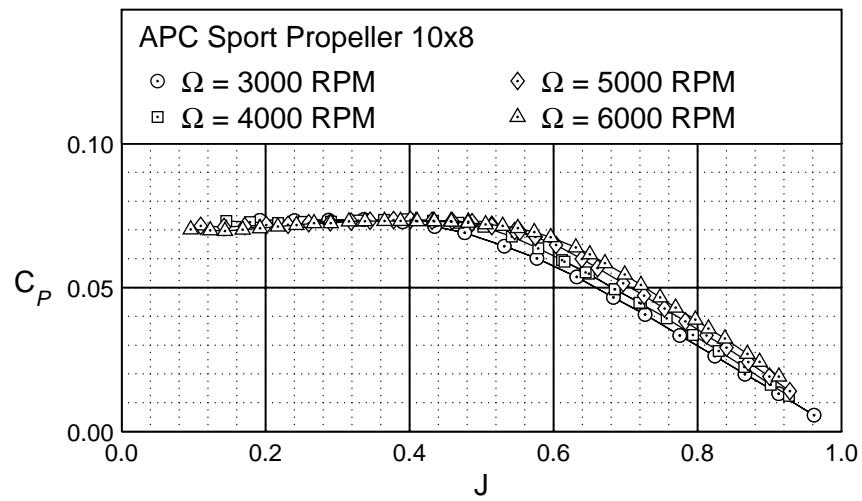


Figure 5.64: APC Sport Prop 10×8 power characteristics.

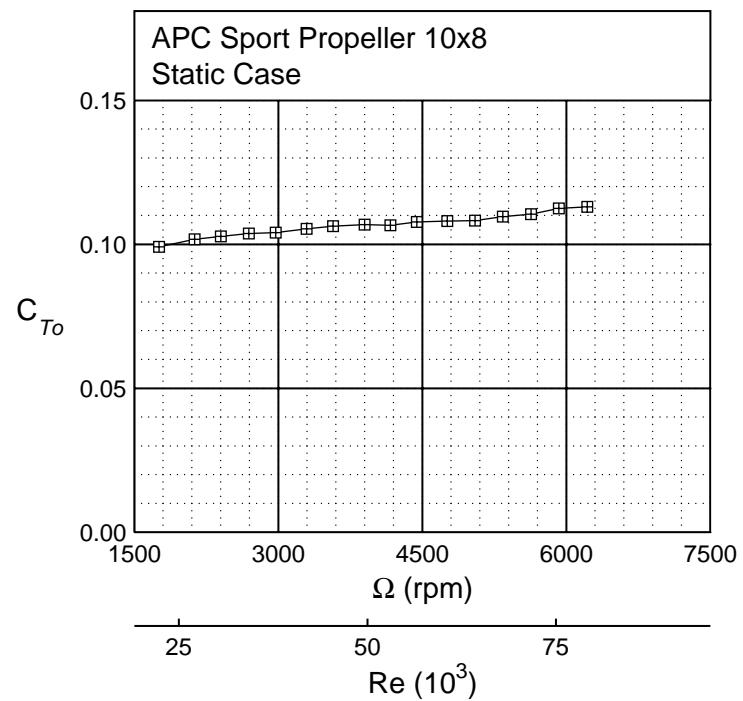


Figure 5.65: APC Sport Prop 10×8 static thrust.

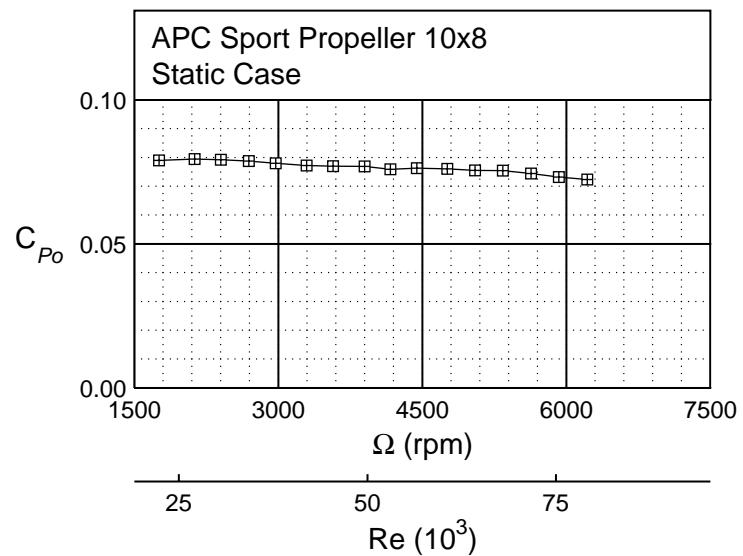
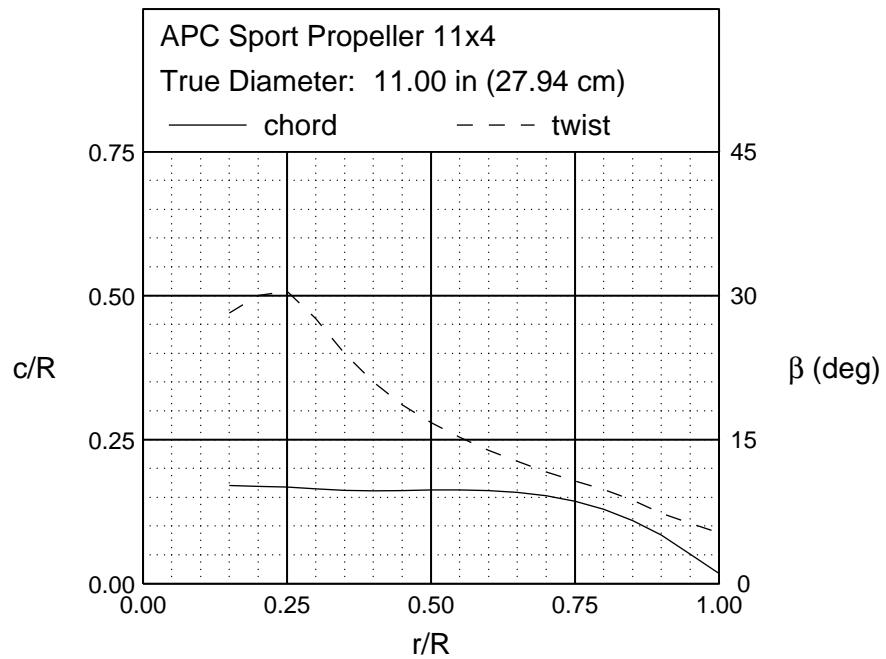


Figure 5.66: APC Sport Prop 10×8 static power.



Front View



Side View

Figure 5.67: APC Sport Prop 11×4 geometric characteristics.

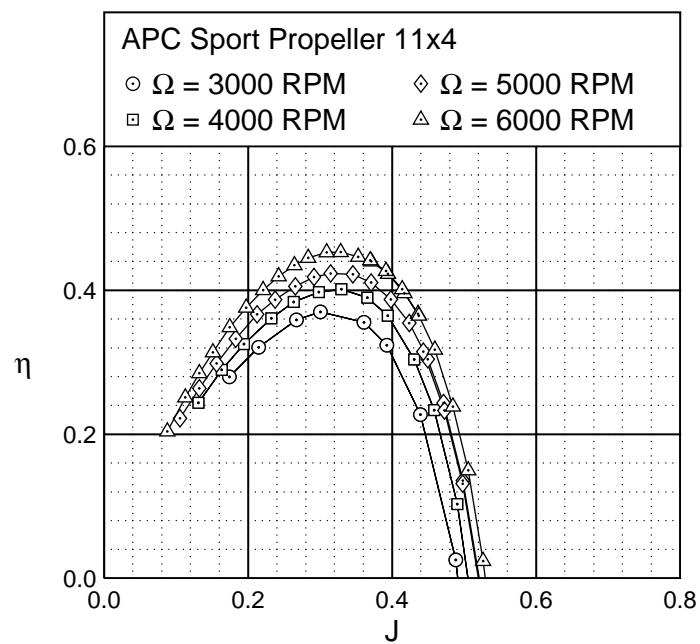


Figure 5.68: APC Sport Prop 11×4 efficiency curves.

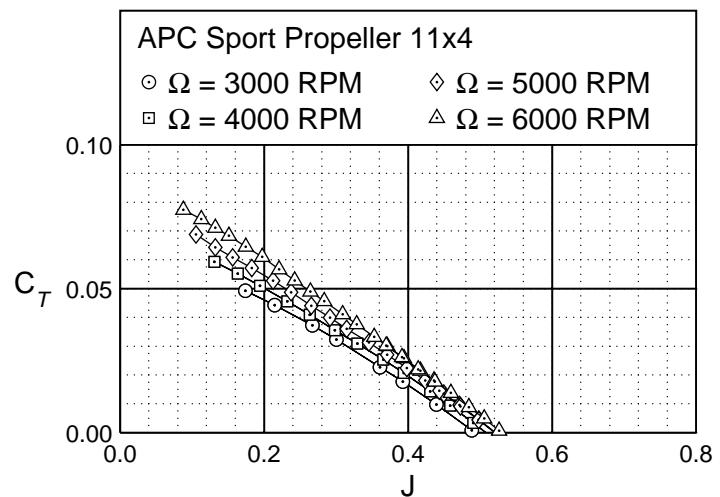


Figure 5.69: APC Sport Prop 11×4 thrust characteristics.

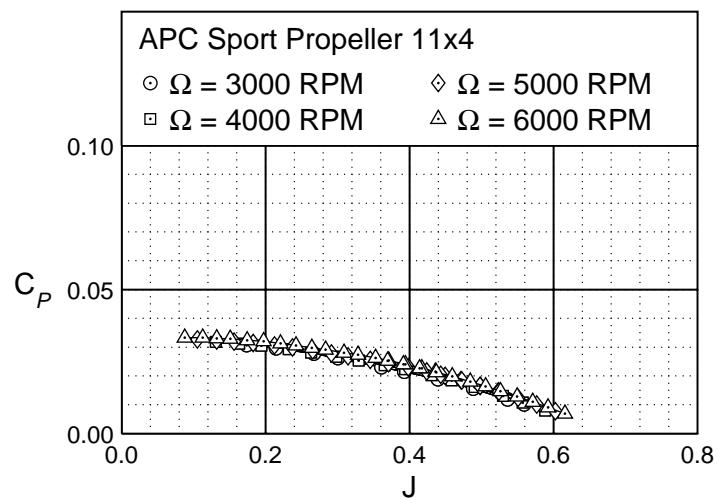


Figure 5.70: APC Sport Prop 11×4 power characteristics.

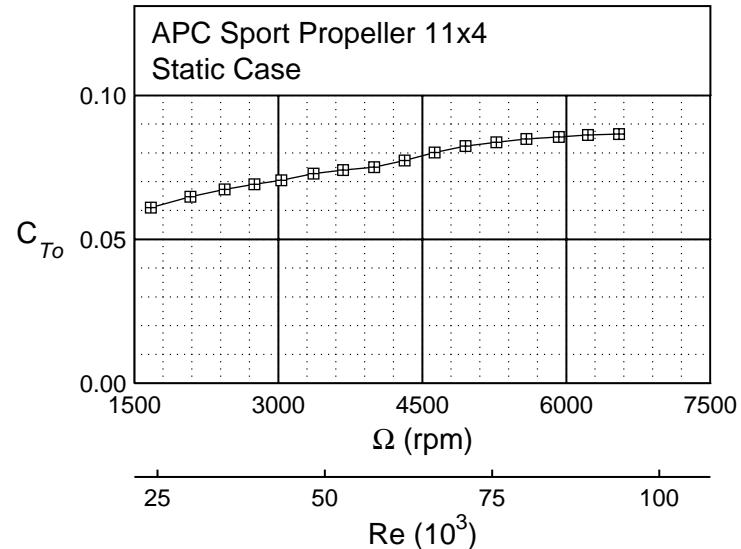


Figure 5.71: APC Sport Prop 11×4 static thrust.

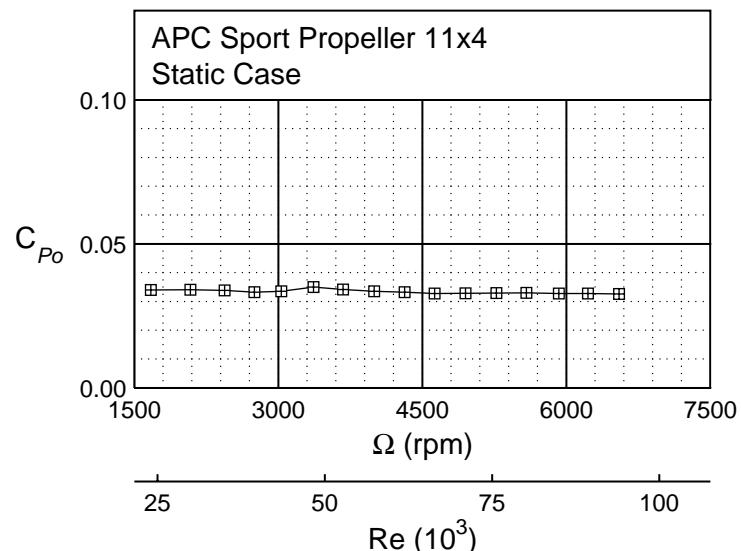
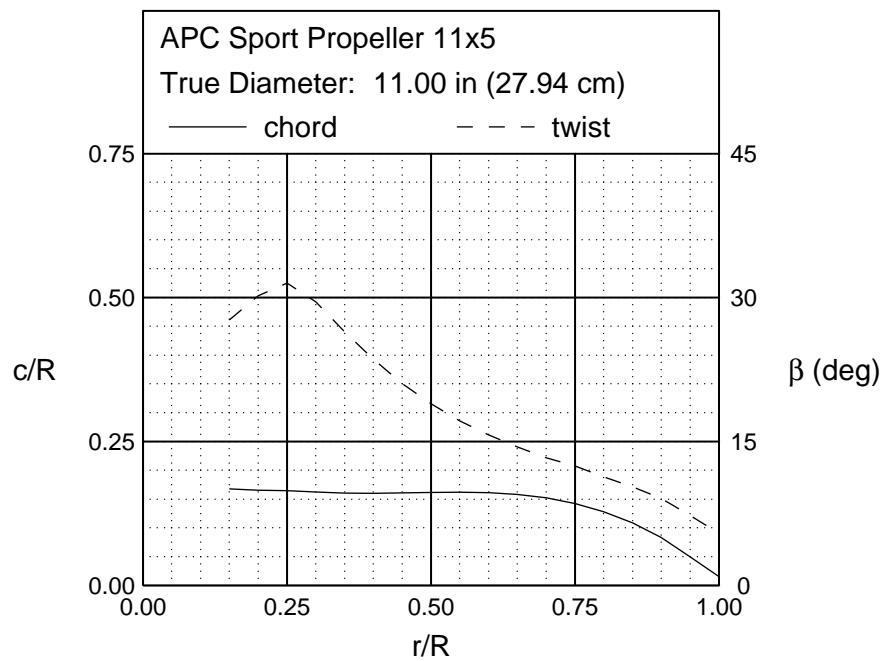


Figure 5.72: APC Sport Prop 11×4 static power.



Front View



Side View

Figure 5.73: APC Sport Prop 11×5 geometric characteristics.

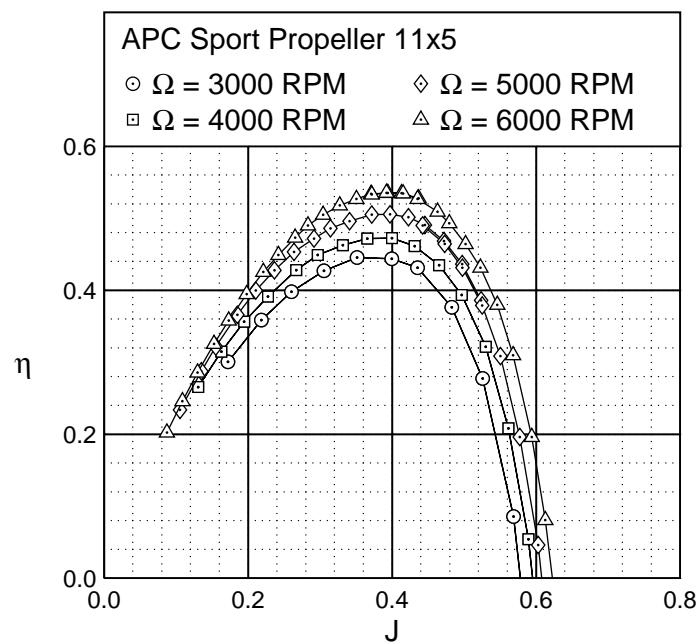


Figure 5.74: APC Sport Prop 11×5 efficiency curves.

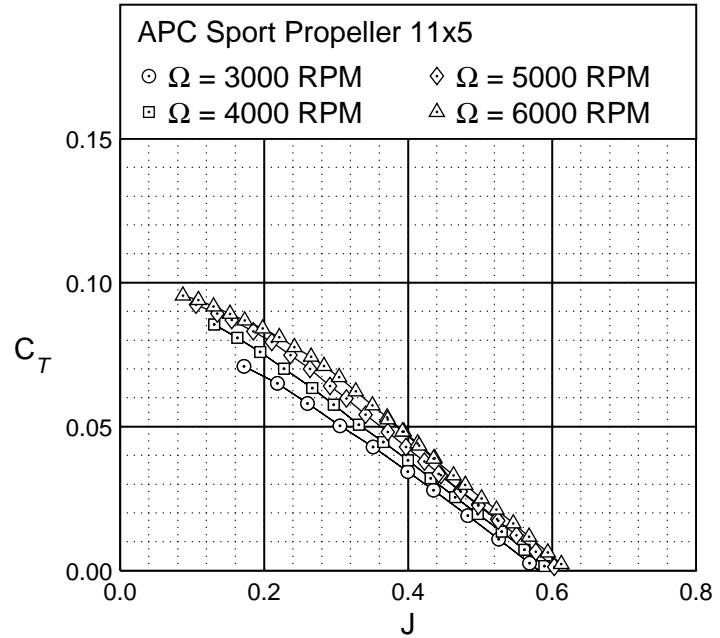


Figure 5.75: APC Sport Prop 11×5 thrust characteristics.

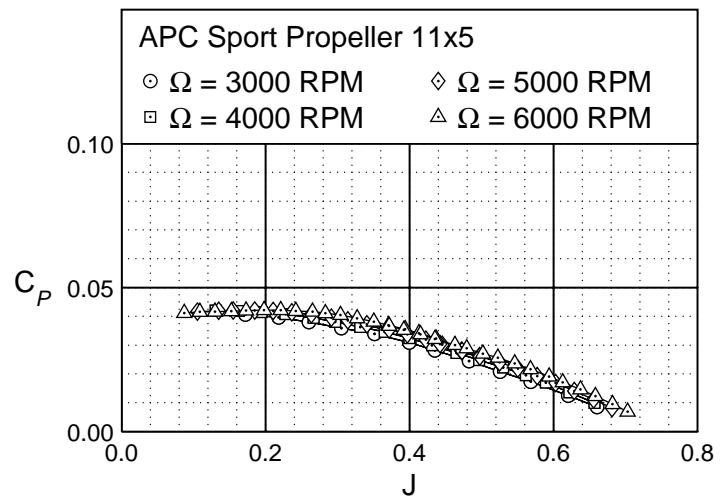


Figure 5.76: APC Sport Prop 11×5 power characteristics.

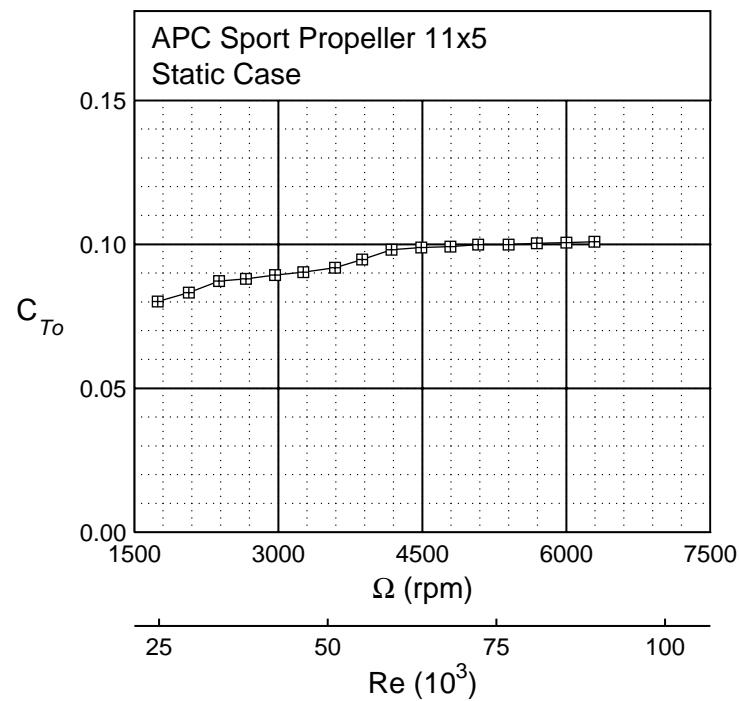


Figure 5.77: APC Sport Prop 11×5 static thrust.

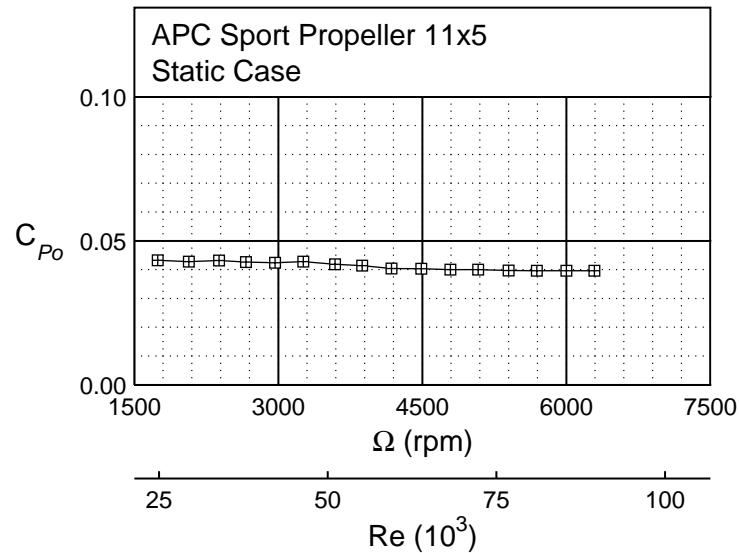
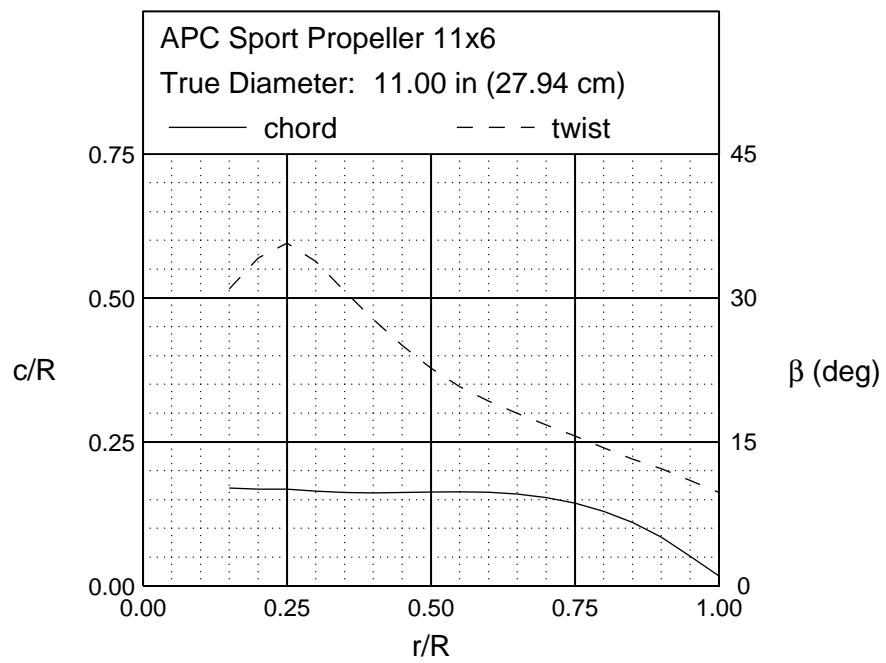


Figure 5.78: APC Sport Prop 11×5 static power.



Front View



Side View

Figure 5.79: APC Sport Prop 11×6 geometric characteristics.

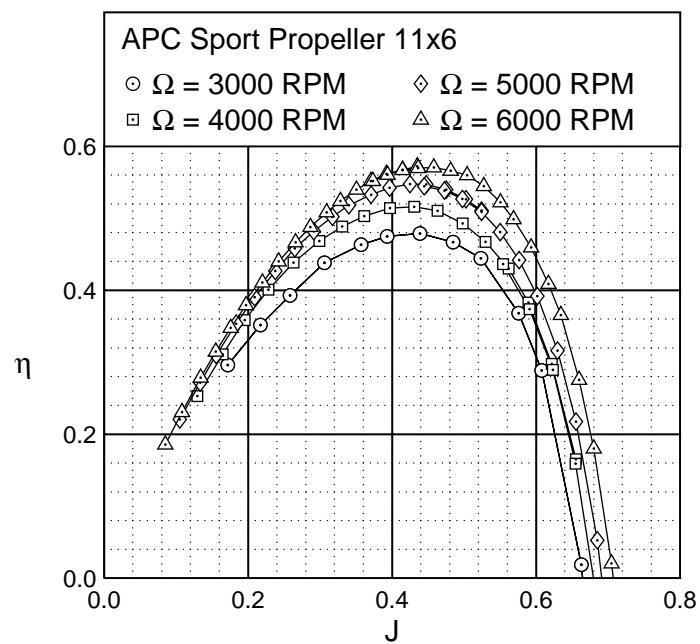


Figure 5.80: APC Sport Prop 11×6 efficiency curves.

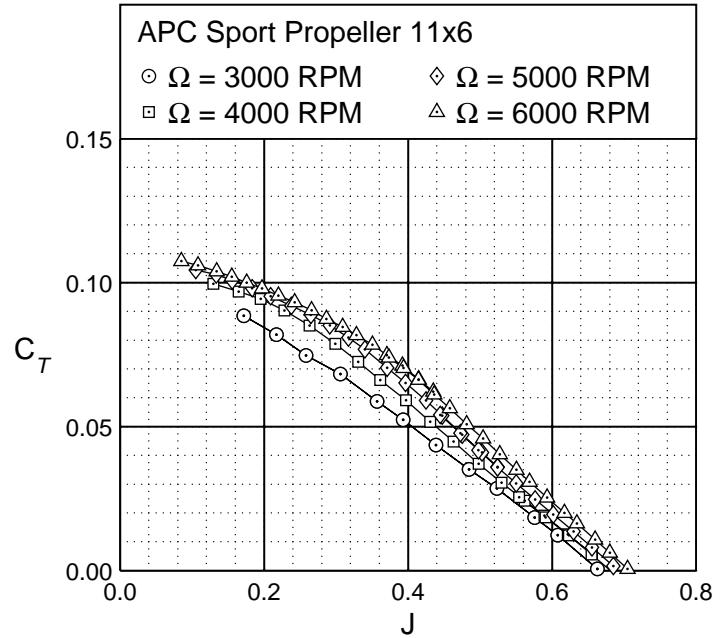


Figure 5.81: APC Sport Prop 11×6 thrust characteristics.

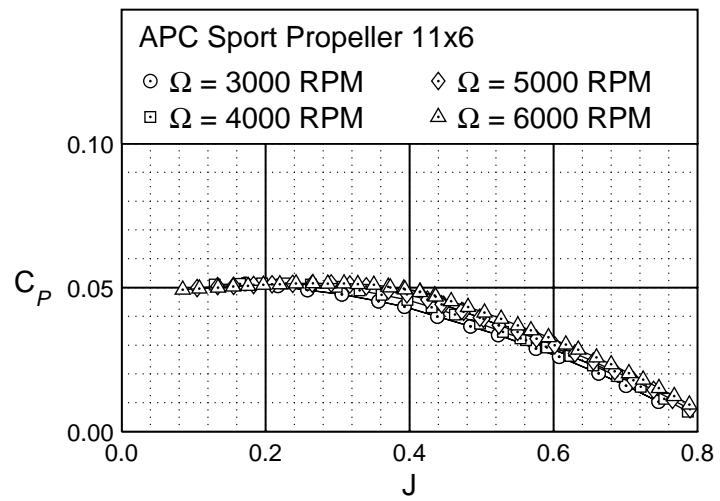


Figure 5.82: APC Sport Prop 11×6 power characteristics.

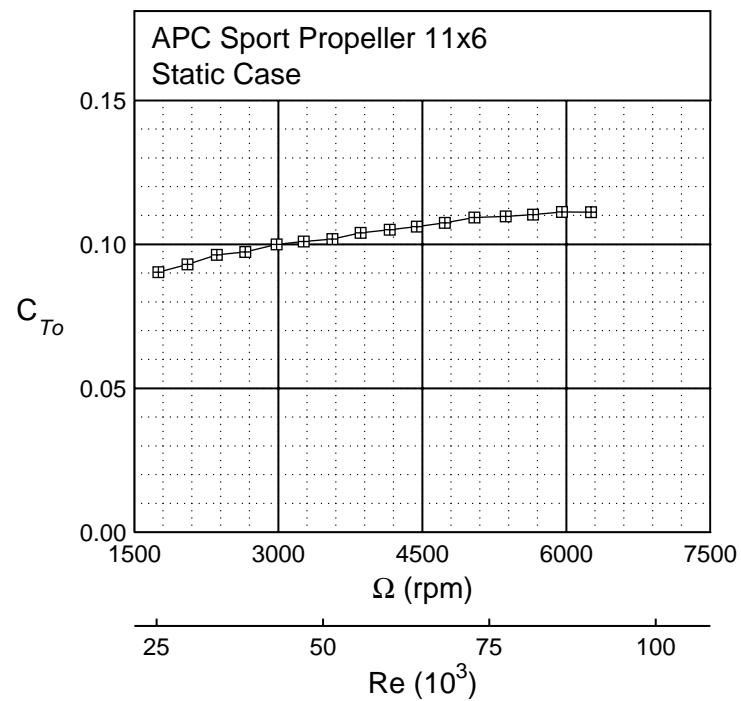


Figure 5.83: APC Sport Prop 11×6 static thrust.

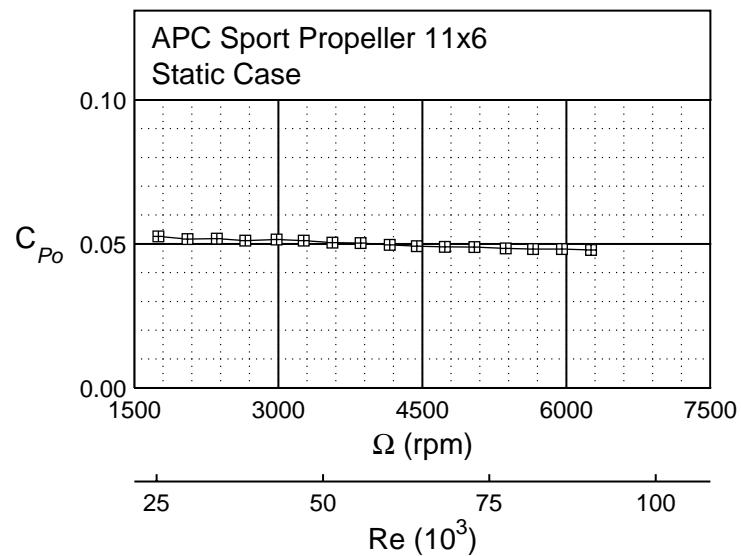
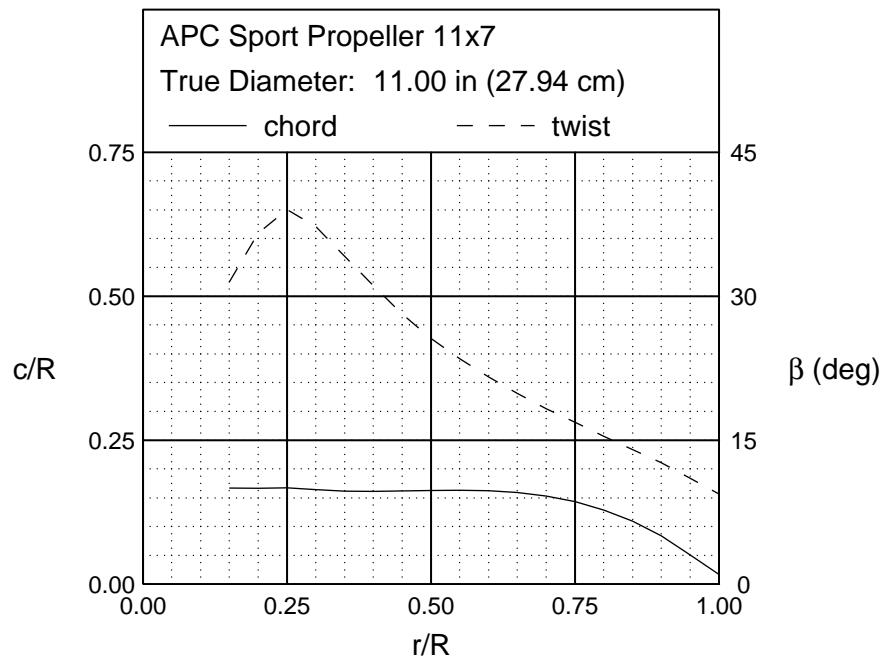
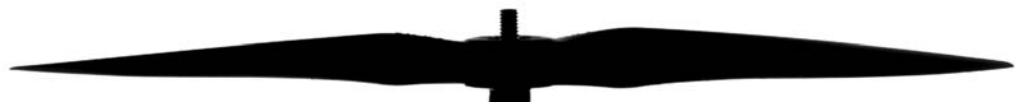


Figure 5.84: APC Sport Prop 11×6 static power.



Front View



Side View

Figure 5.85: APC Sport Prop 11×7 geometric characteristics.

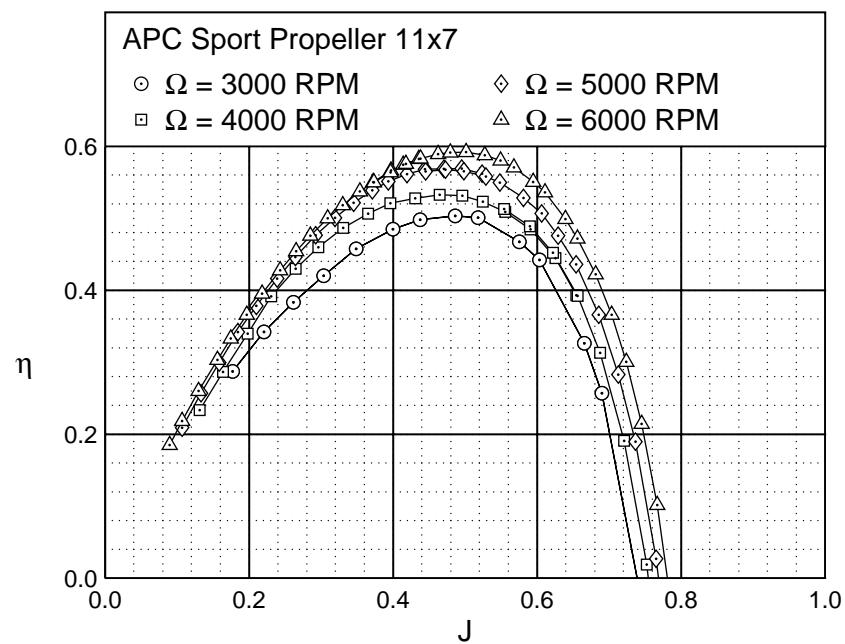


Figure 5.86: APC Sport Prop 11×7 efficiency curves.

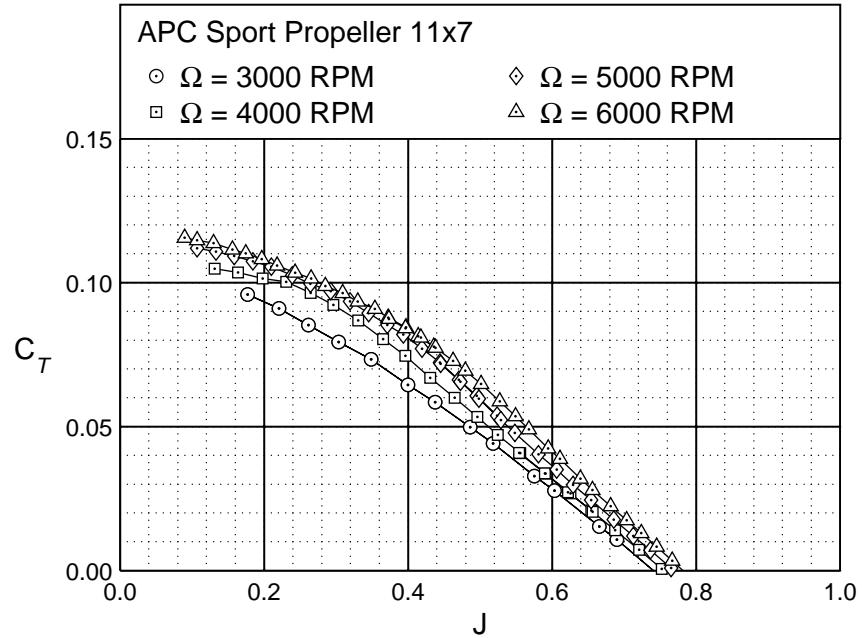


Figure 5.87: APC Sport Prop 11×7 thrust characteristics.

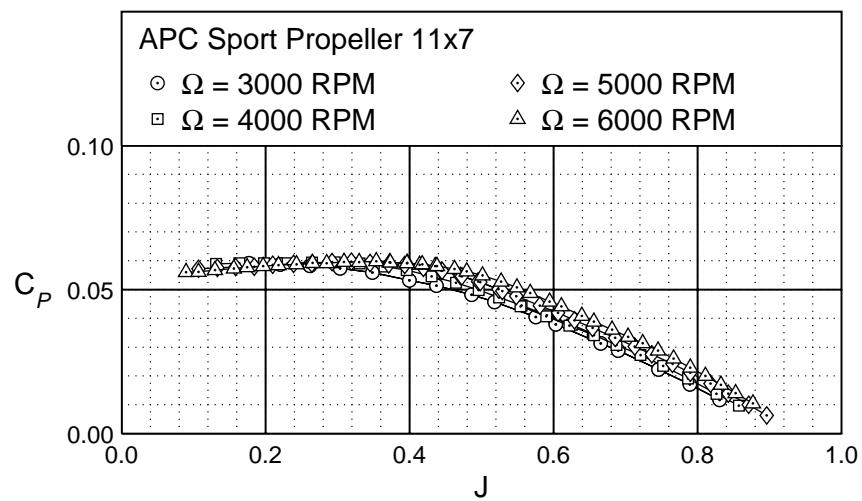


Figure 5.88: APC Sport Prop 11×7 power characteristics.

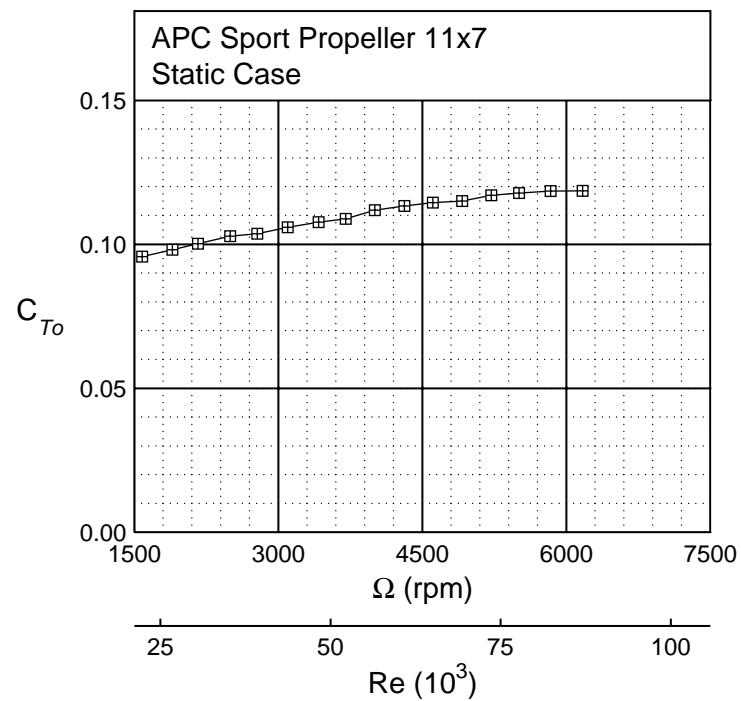


Figure 5.89: APC Sport Prop 11×7 static thrust.

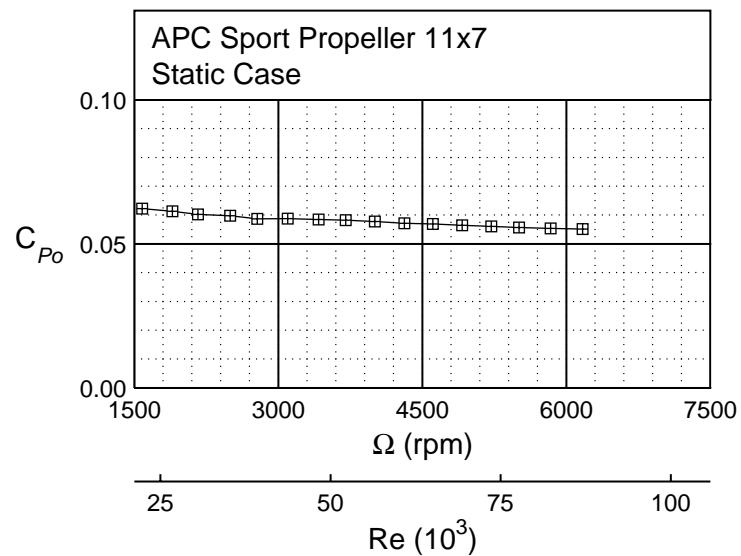
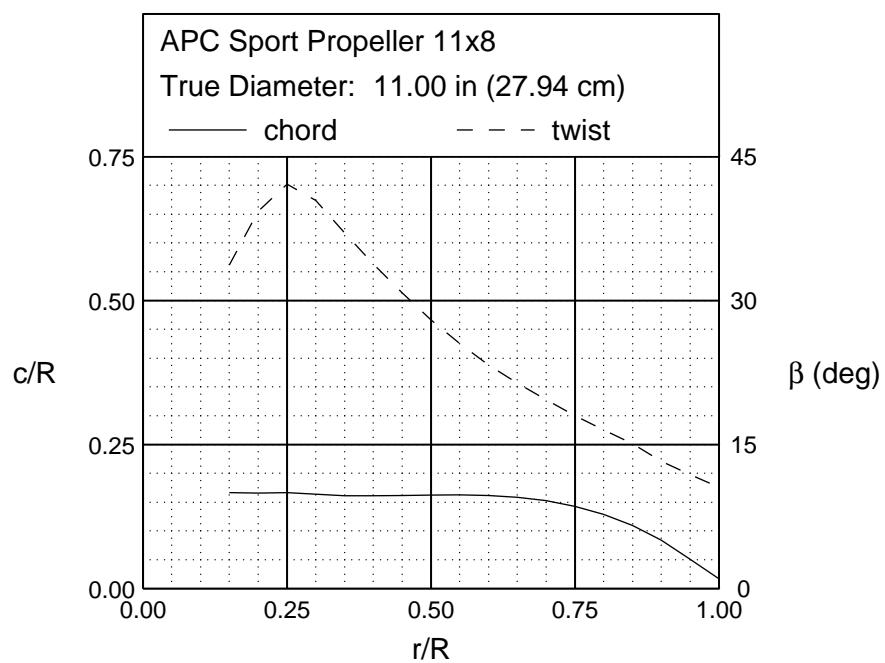


Figure 5.90: APC Sport Prop 11×7 static power.



Front View



Side View

Figure 5.91: APC Sport Prop 11×8 geometric characteristics.

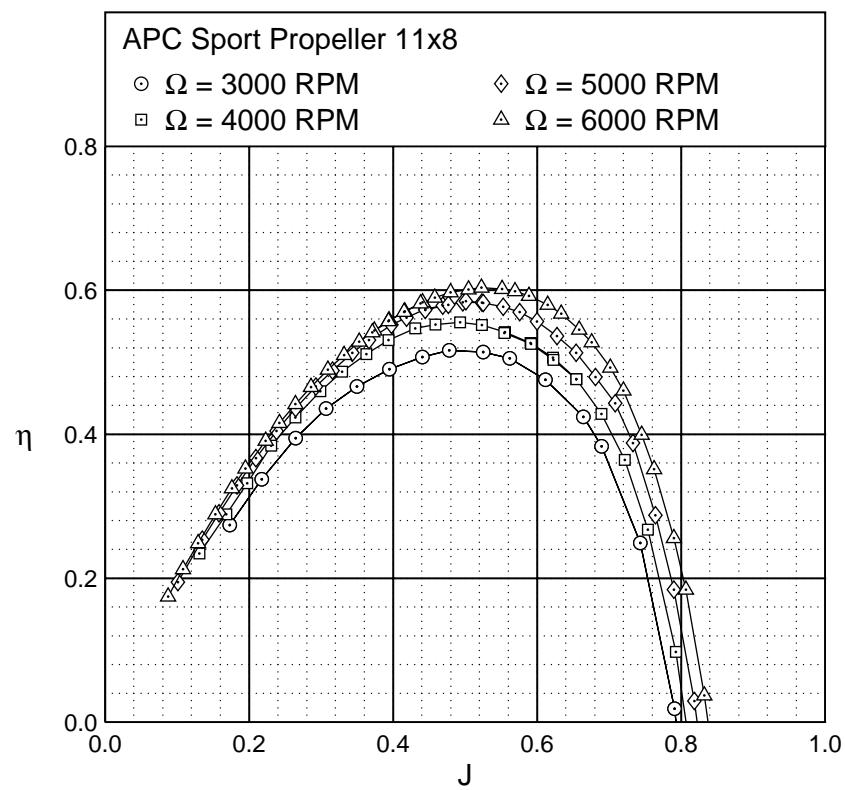


Figure 5.92: APC Sport Prop 11×8 efficiency curves.

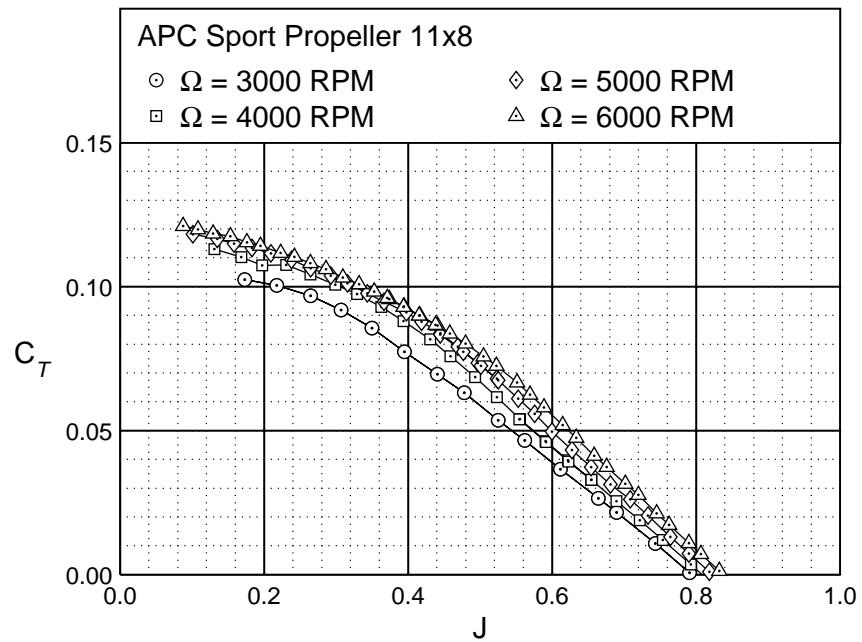


Figure 5.93: APC Sport Prop 11×8 thrust characteristics.

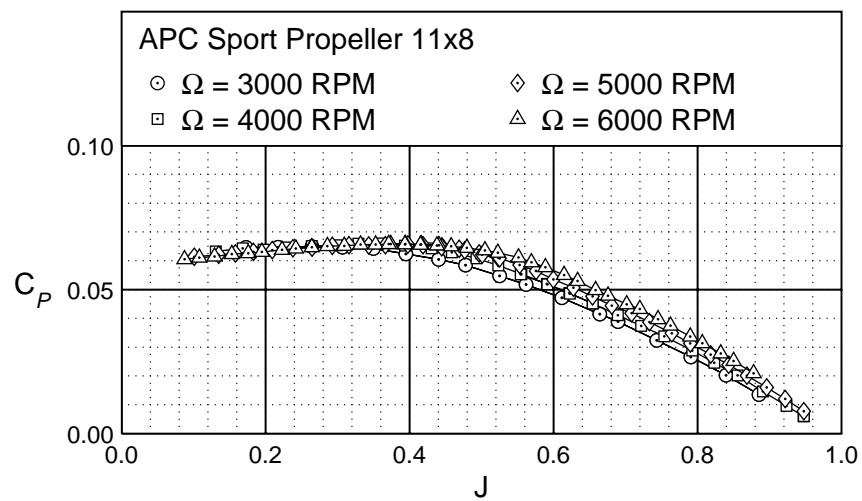


Figure 5.94: APC Sport Prop 11×8 power characteristics.

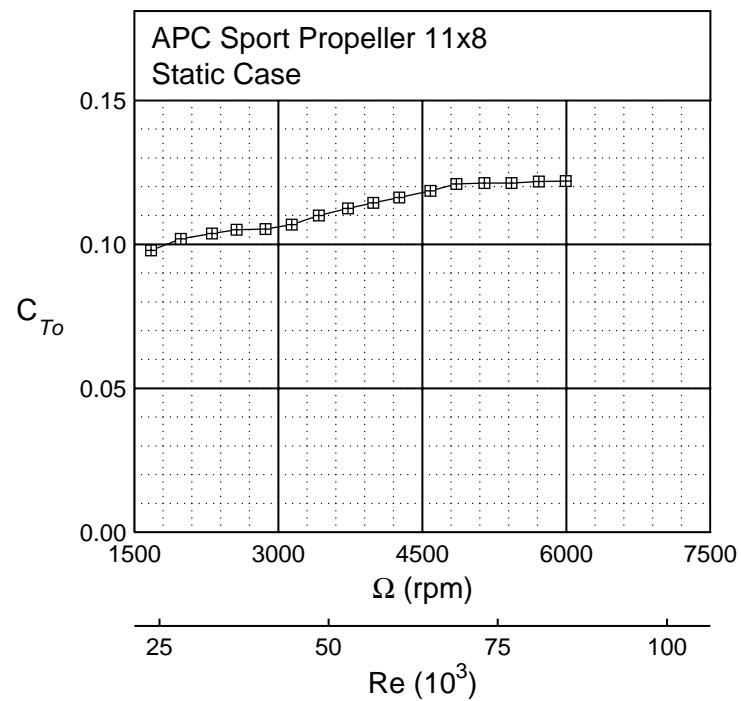


Figure 5.95: APC Sport Prop 11×8 static thrust.

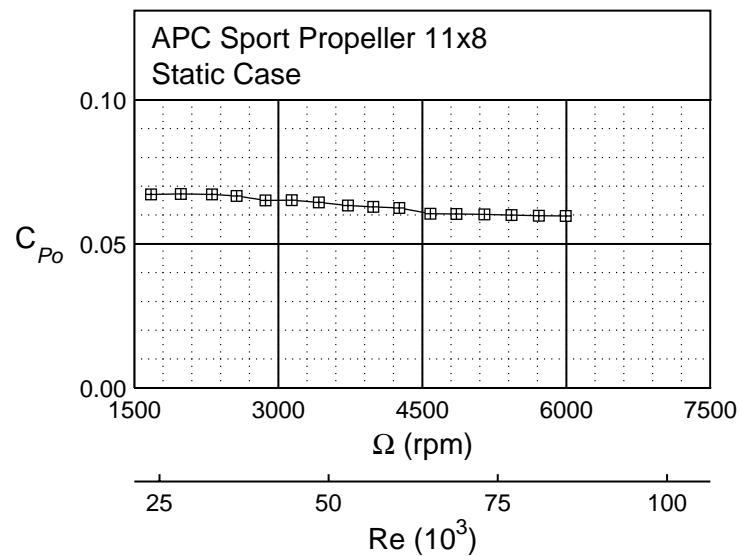
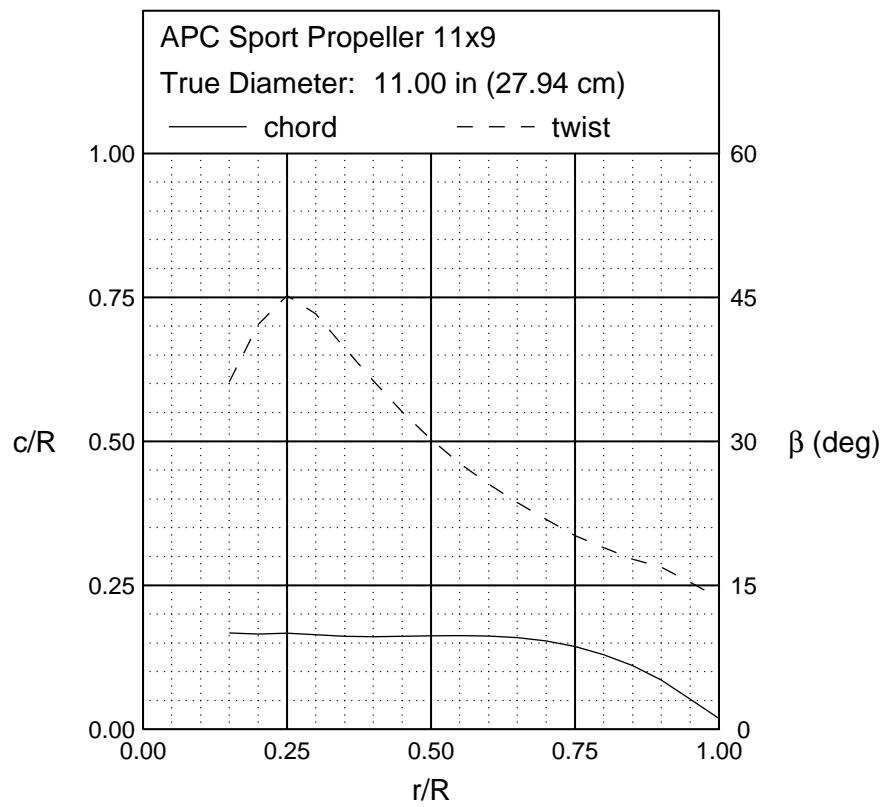


Figure 5.96: APC Sport Prop 11×8 static power.



Front View



Side View

Figure 5.97: APC Sport Prop 11×9 geometric characteristics.

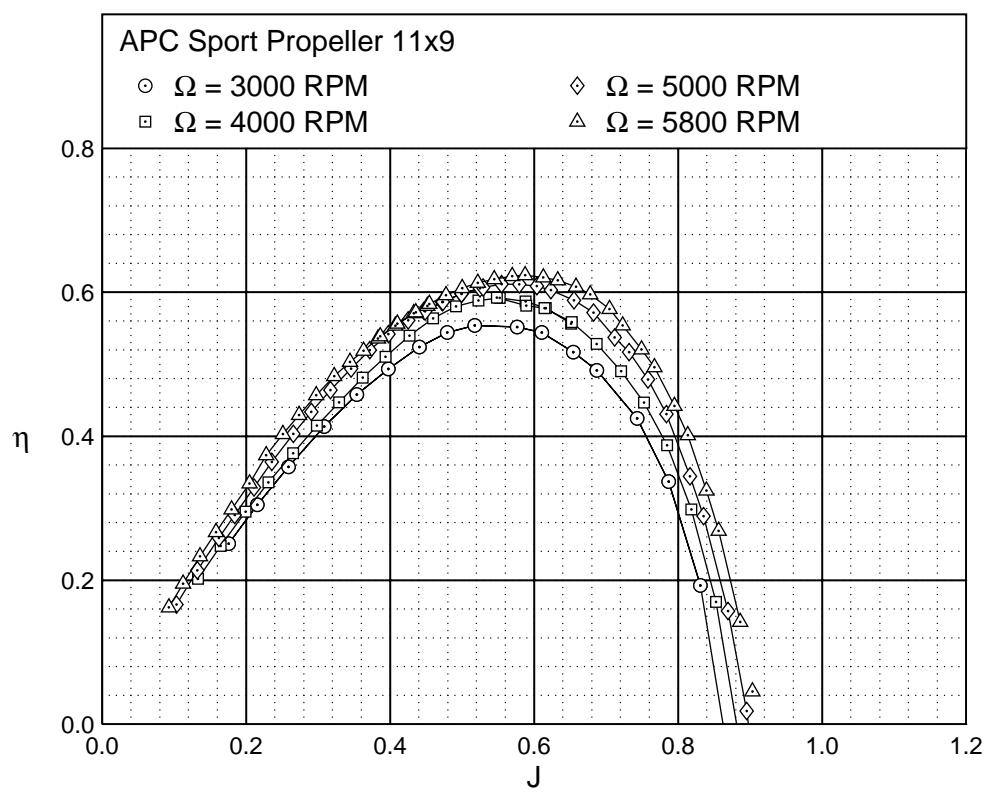


Figure 5.98: APC Sport Prop 11×9 efficiency curves.

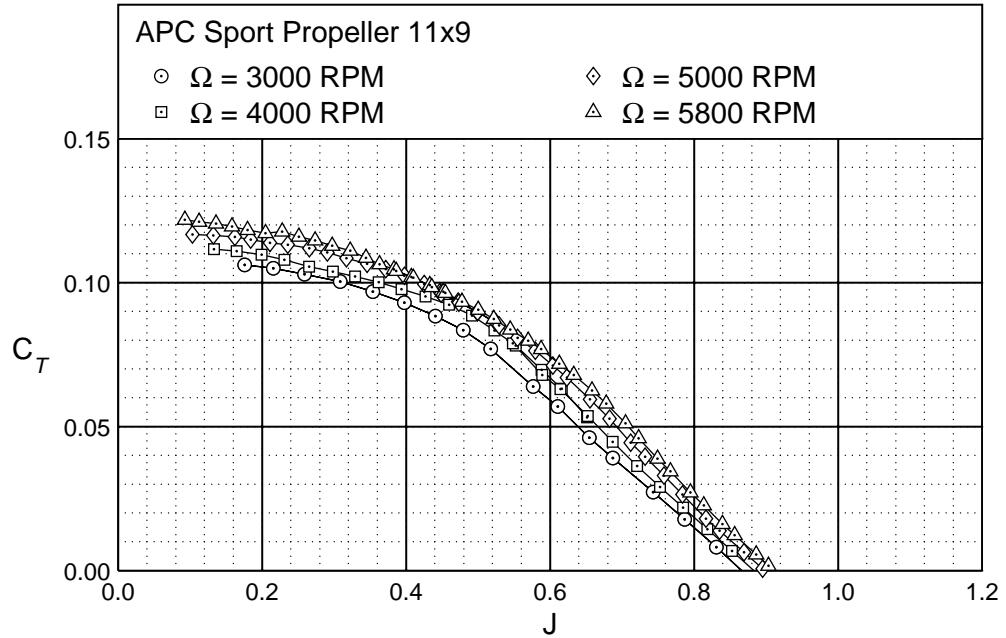


Figure 5.99: APC Sport Prop 11×9 thrust characteristics.

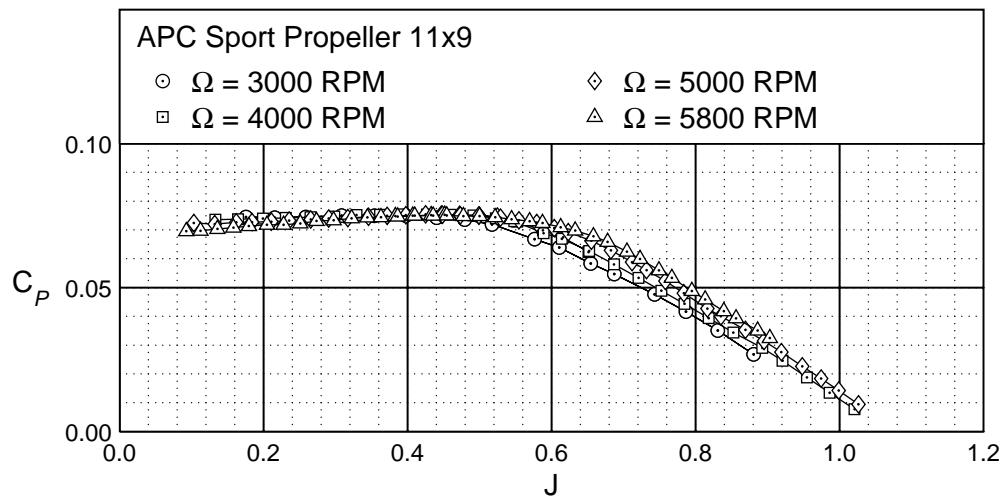


Figure 5.100: APC Sport Prop 11×9 power characteristics.

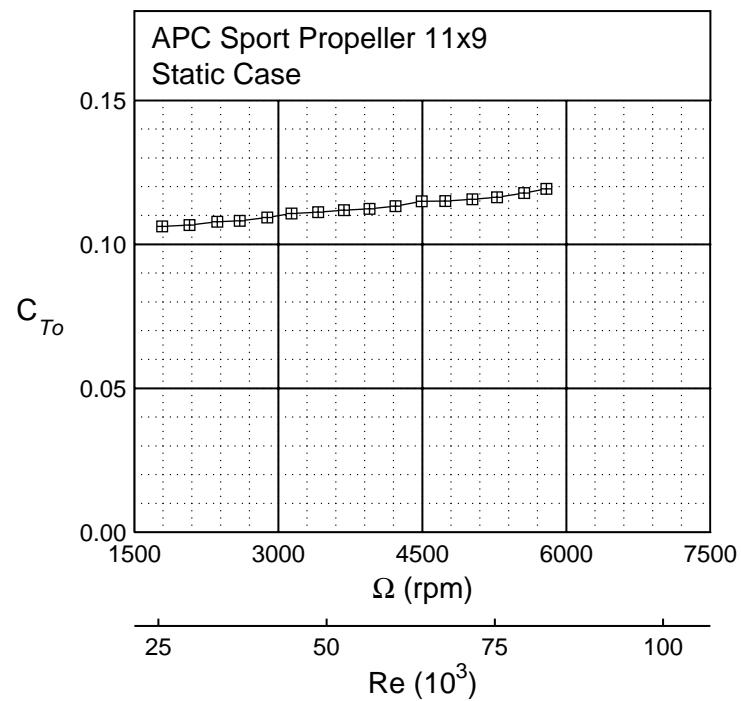


Figure 5.101: APC Sport Prop 11×9 static thrust.

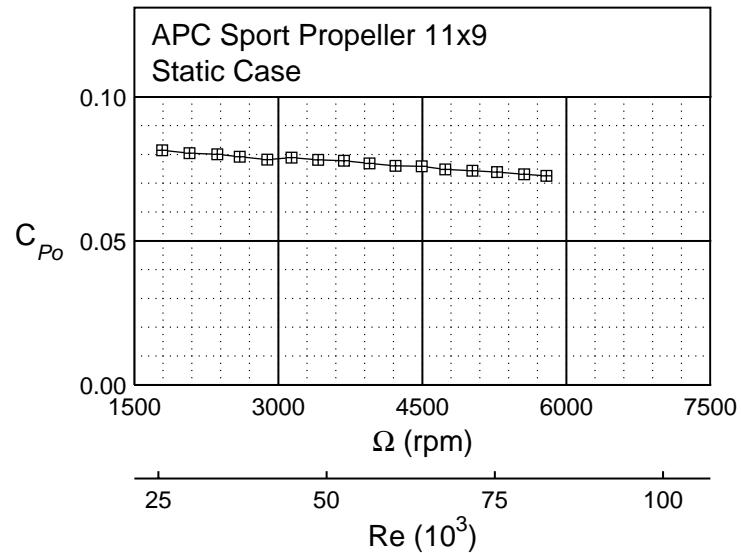
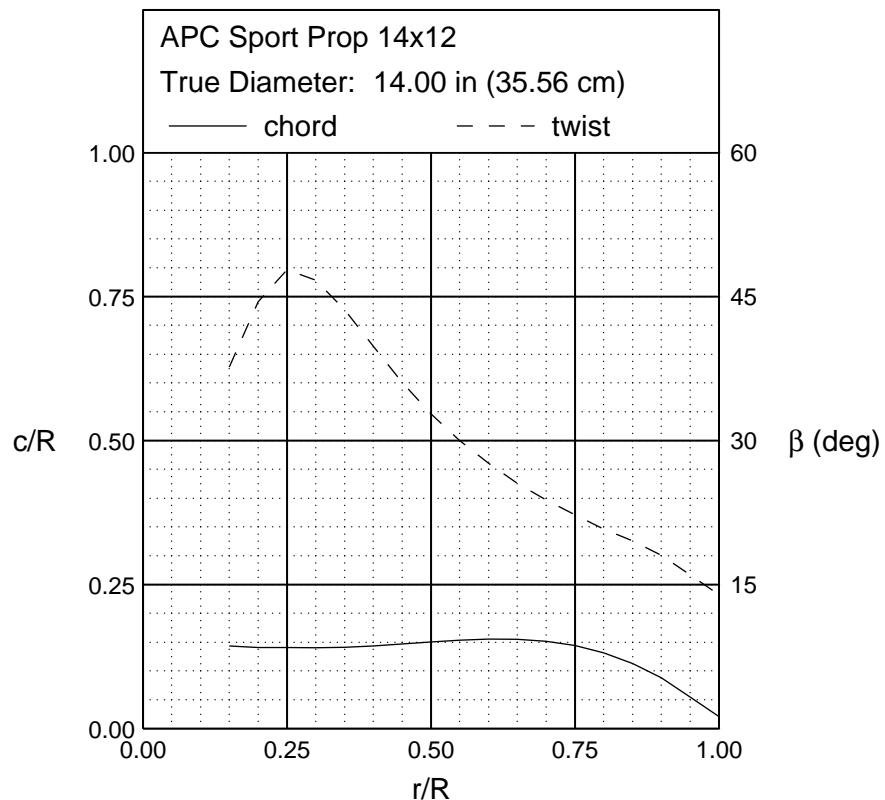


Figure 5.102: APC Sport Prop 11×9 static power.



Front View



Side View

Figure 5.103: APC Sport Prop 14×13 geometric characteristics.

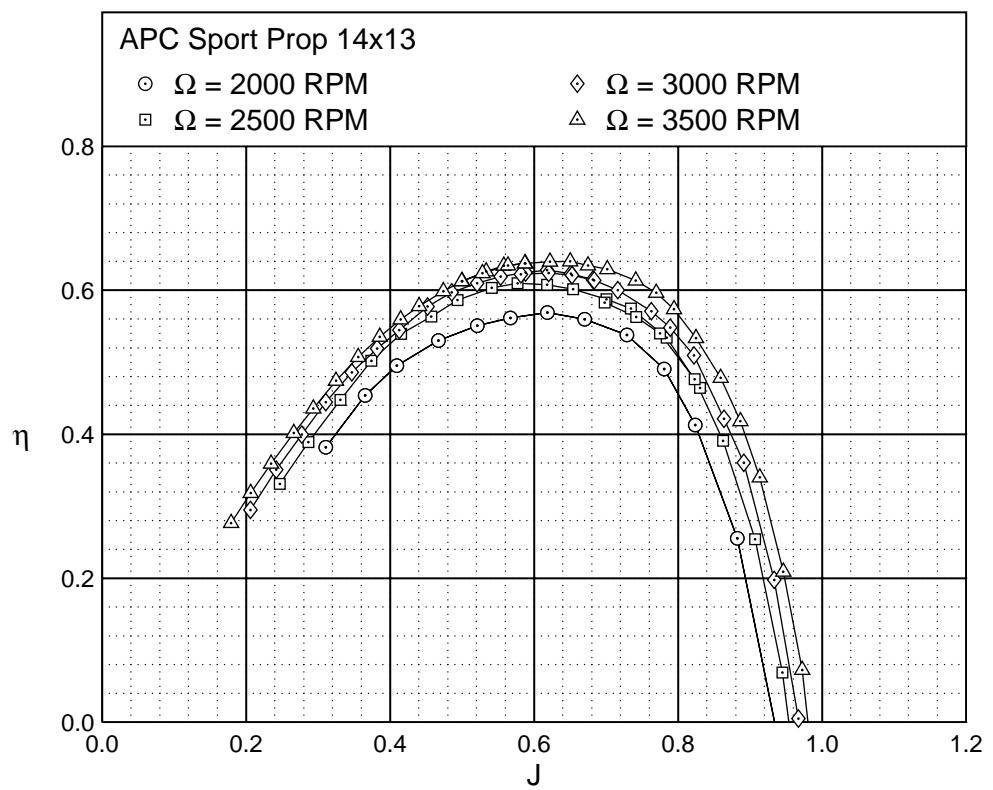


Figure 5.104: APC Sport Prop 14×13 efficiency curves.

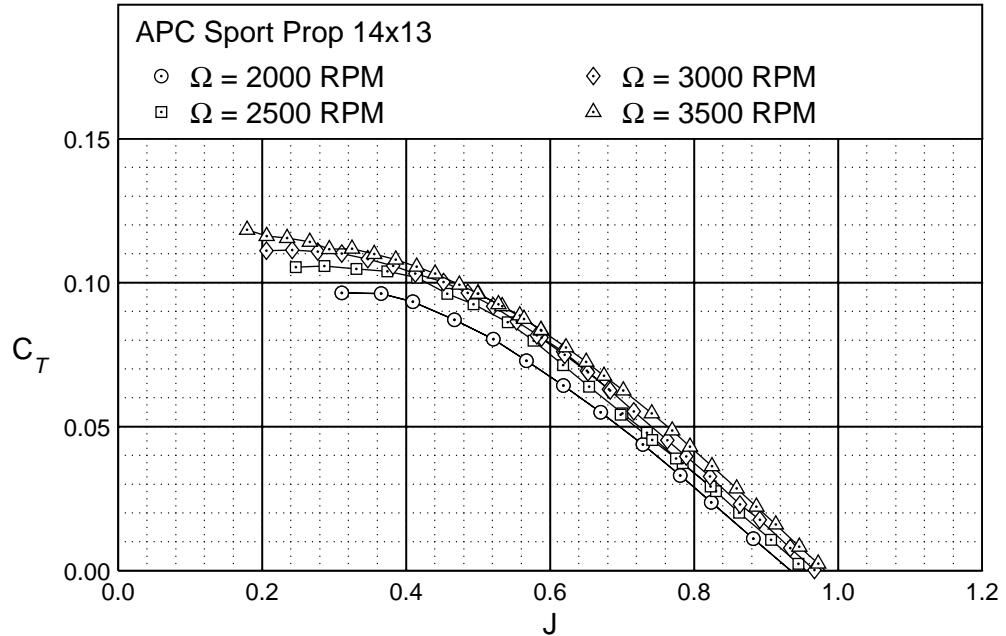


Figure 5.105: APC Sport Prop 14×13 thrust characteristics.

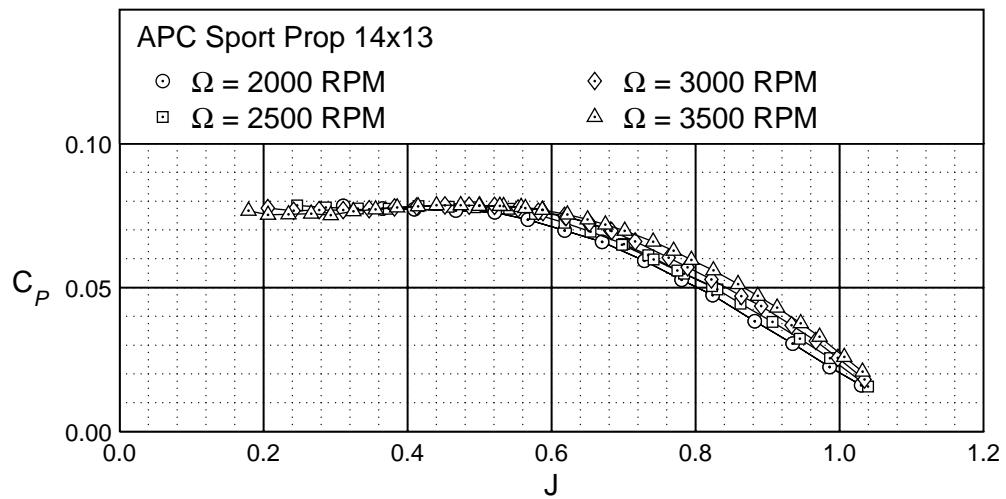


Figure 5.106: APC Sport Prop 14×13 power characteristics.

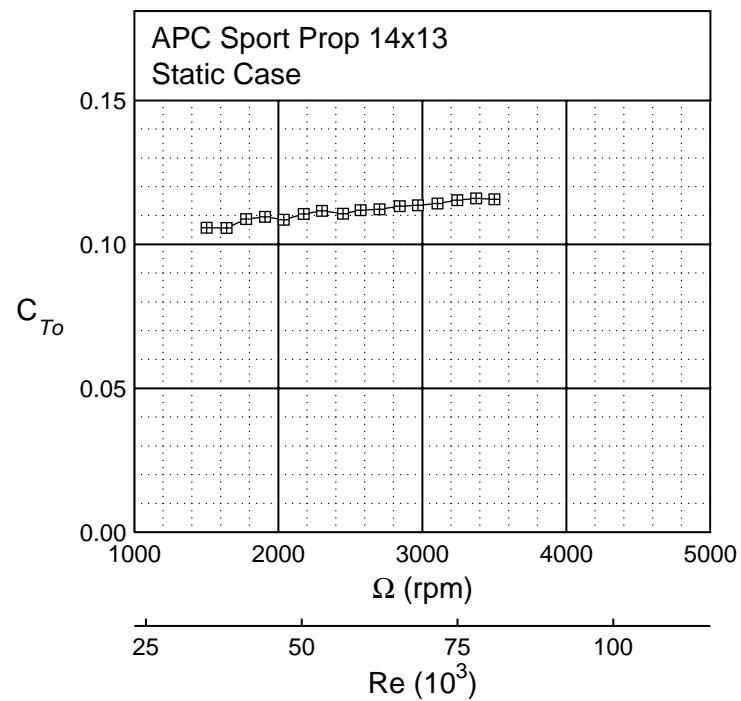


Figure 5.107: APC Sport Prop 14×13 static thrust.

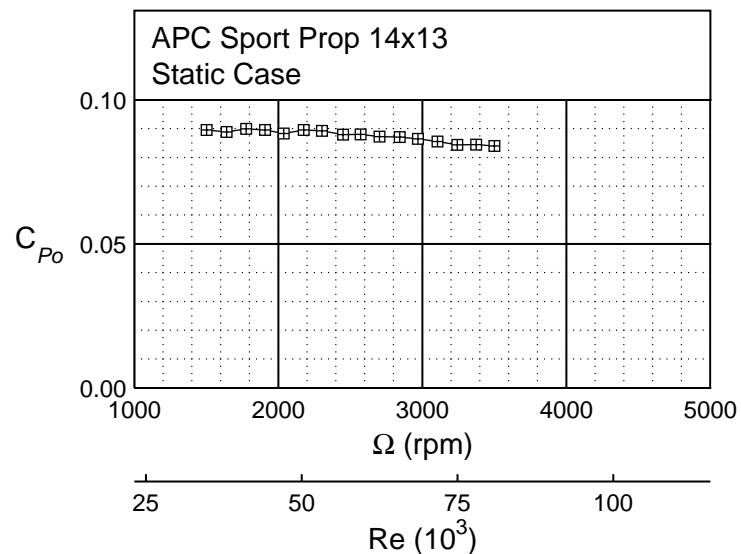
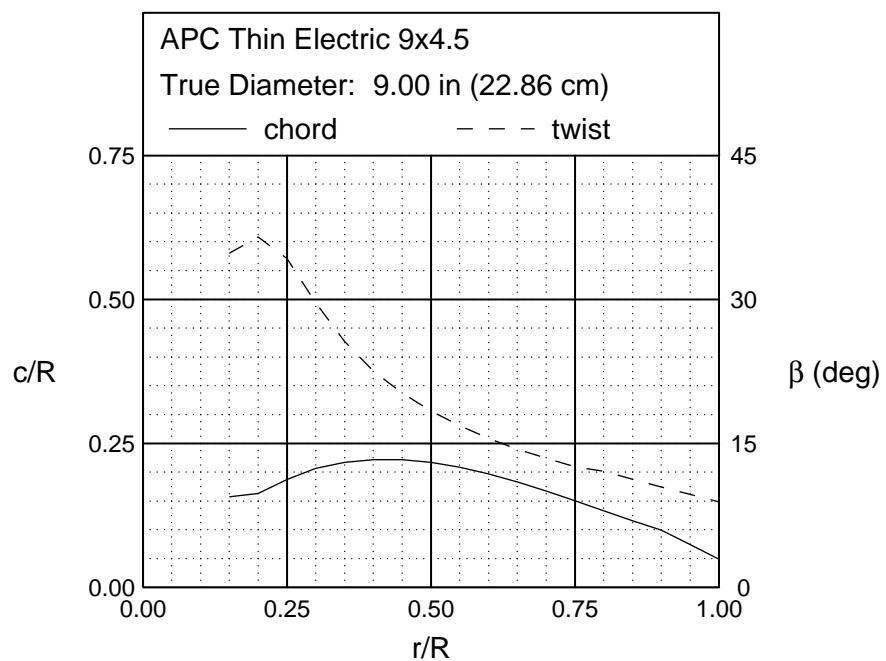


Figure 5.108: APC Sport Prop 14×13 static power.



Front View



Side View

Figure 5.109: APC Thin Electric 9×4.5 geometric characteristics.

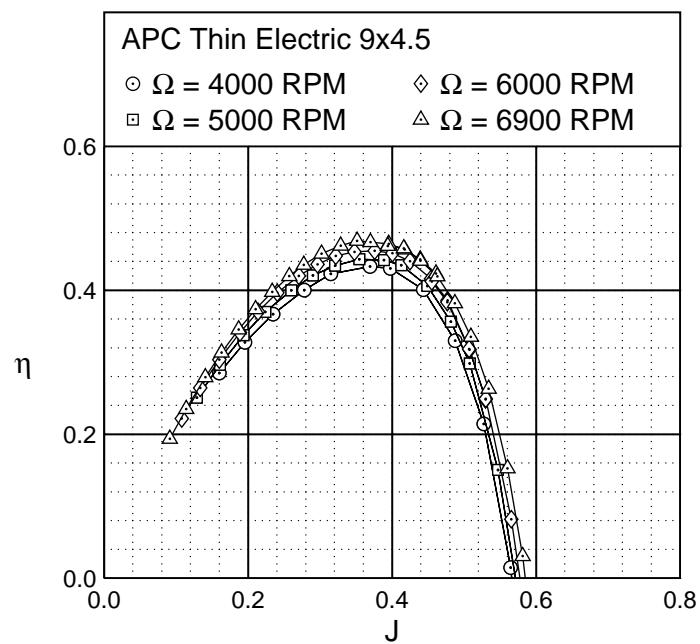


Figure 5.110: APC Thin Electric 9×4.5 efficiency curves.

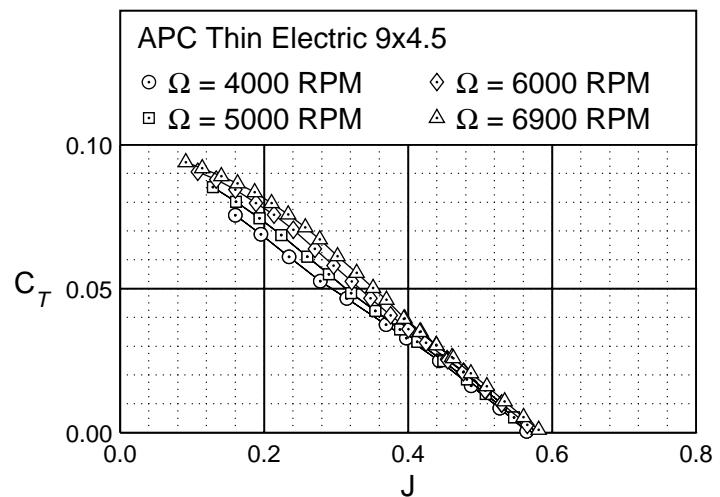


Figure 5.111: APC Thin Electric 9×4.5 thrust characteristics.

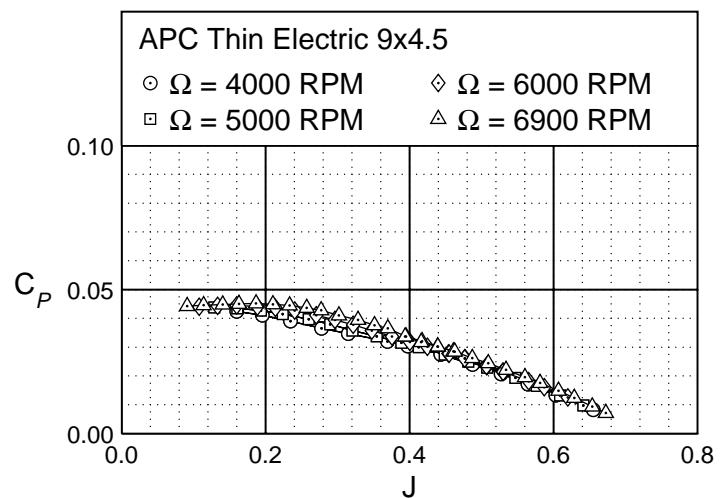


Figure 5.112: APC Thin Electric 9×4.5 power characteristics.

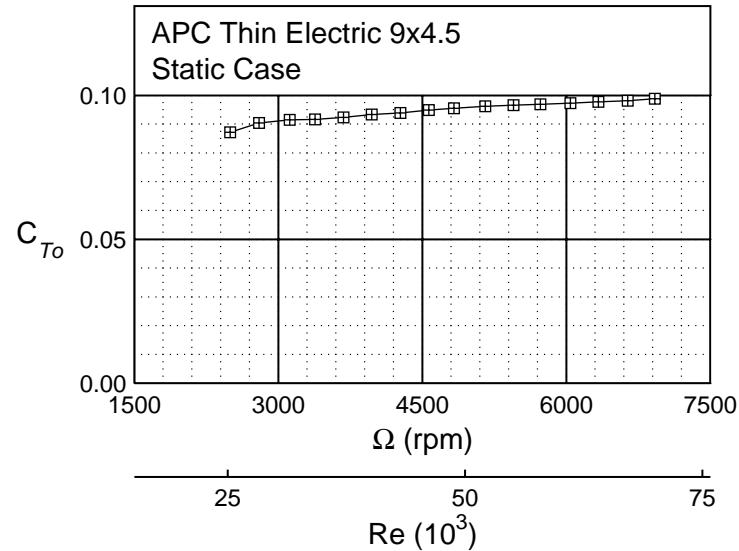


Figure 5.113: APC Thin Electric 9×4.5 static thrust.

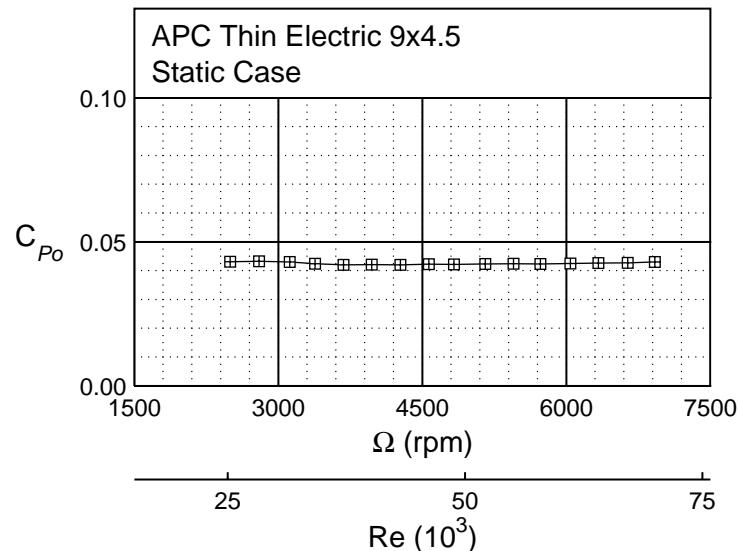
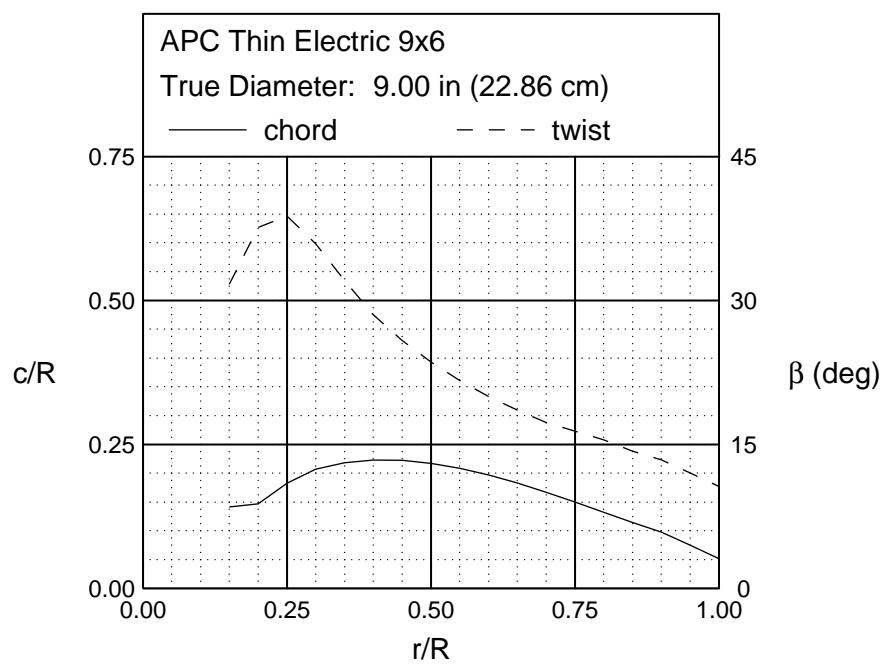


Figure 5.114: APC Thin Electric 9×4.5 static power.



Front View



Side View

Figure 5.115: APC Thin Electric 9×6 geometric characteristics.

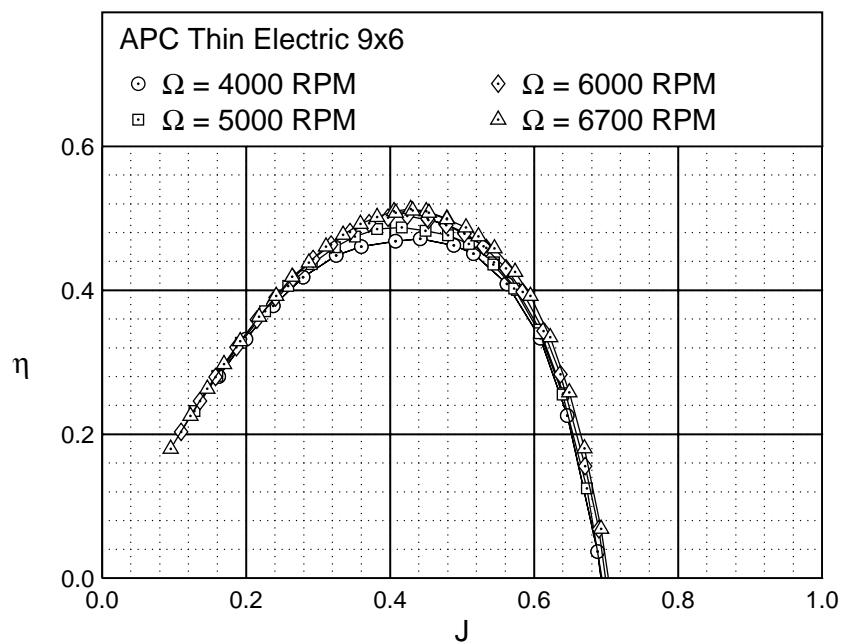


Figure 5.116: APC Thin Electric 9×6 efficiency curves.

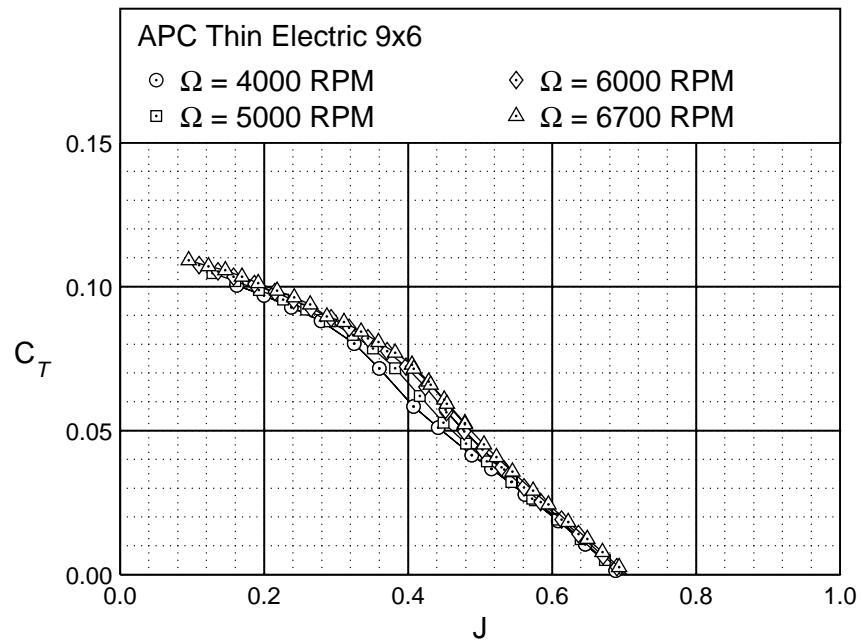


Figure 5.117: APC Thin Electric 9×6 thrust characteristics.

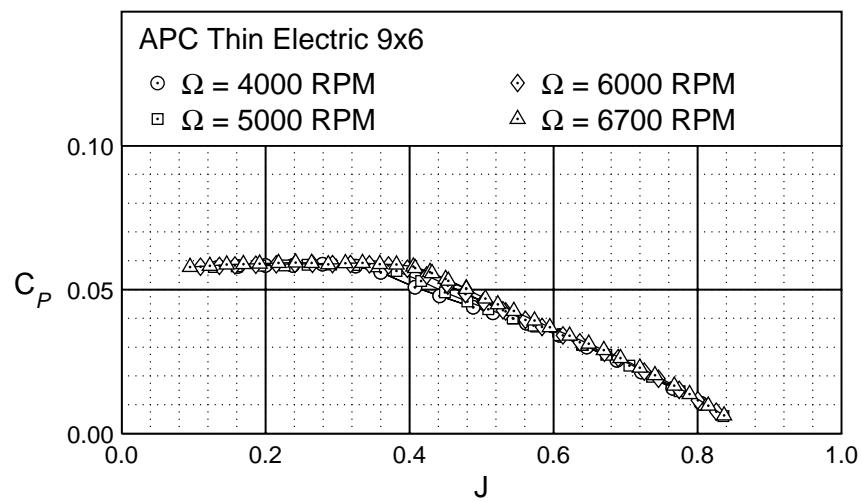


Figure 5.118: APC Thin Electric 9×6 power characteristics.

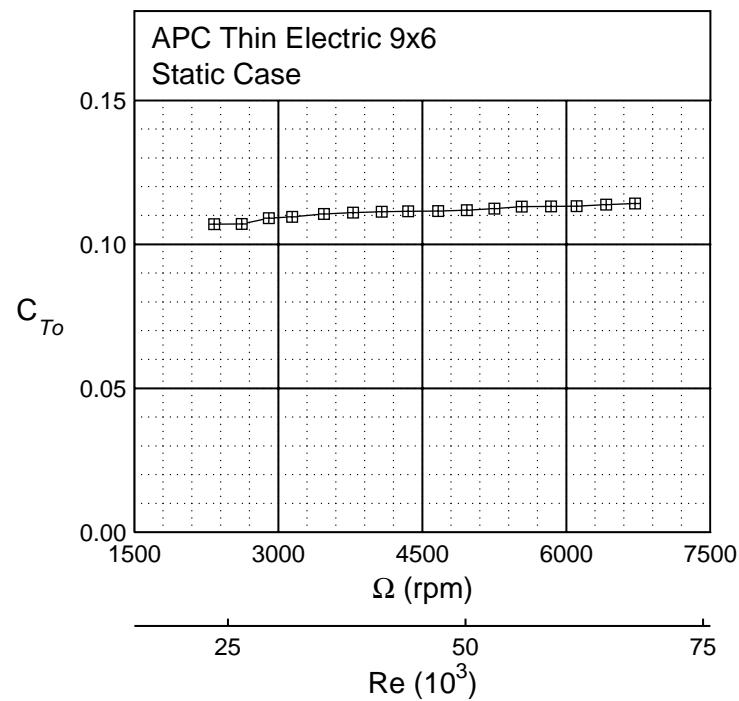


Figure 5.119: APC Thin Electric 9×6 static thrust.

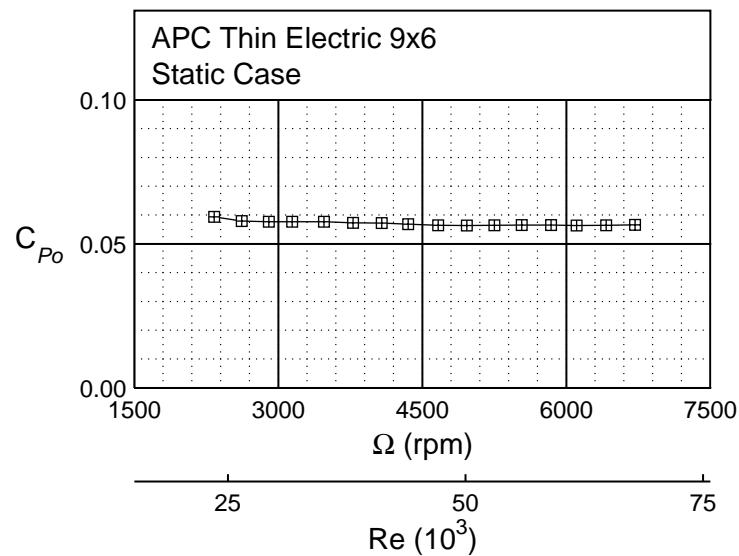
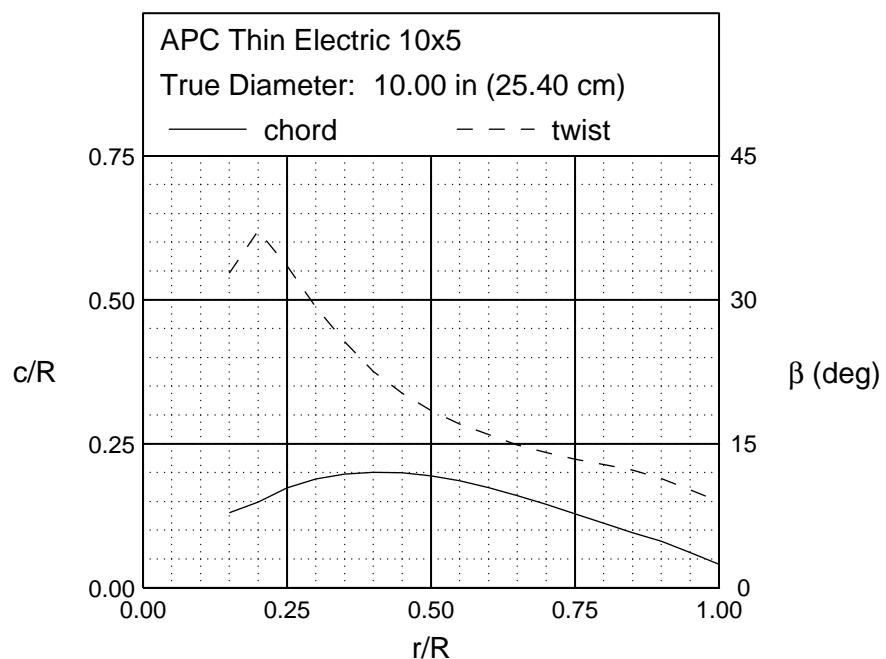


Figure 5.120: APC Thin Electric 9×6 static power.



Front View



Side View

Figure 5.121: APC Thin Electric 10×5 geometric characteristics.

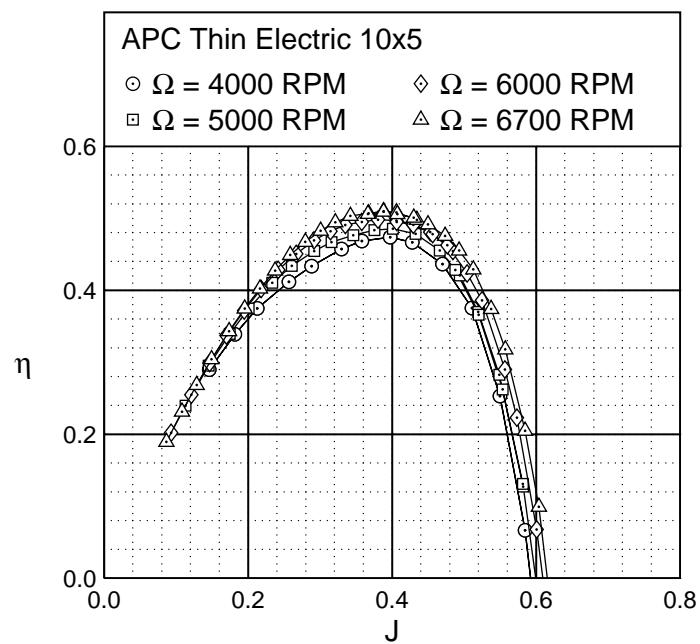


Figure 5.122: APC Thin Electric 10×5 efficiency curves.

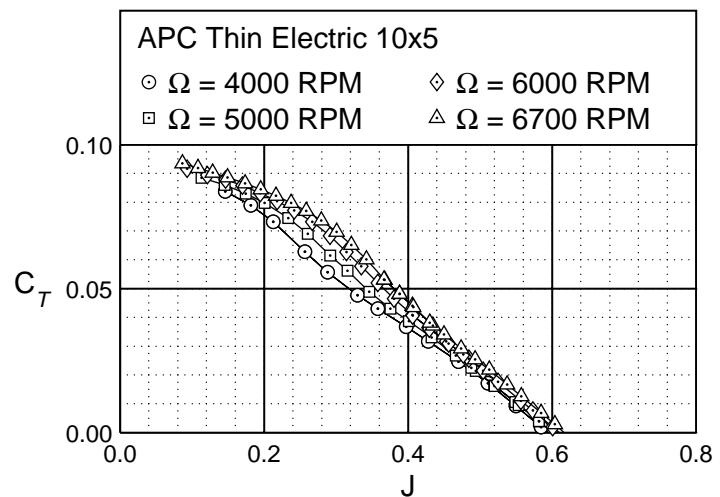


Figure 5.123: APC Thin Electric 10×5 thrust characteristics.

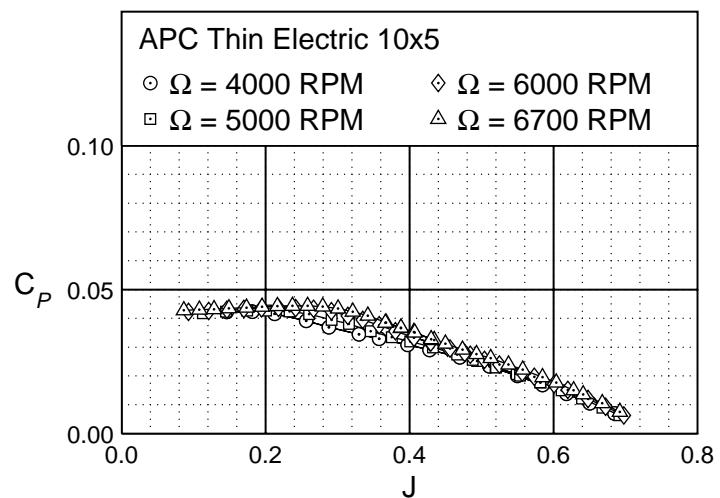


Figure 5.124: APC Thin Electric 10×5 power characteristics.

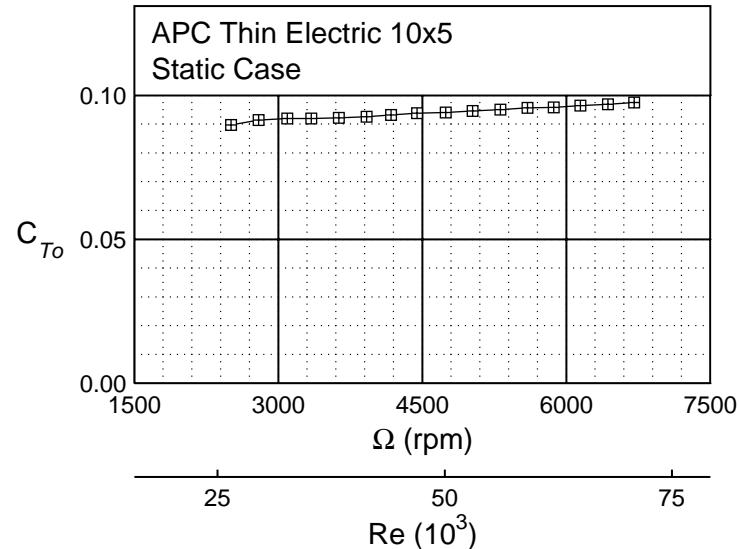


Figure 5.125: APC Thin Electric 10×5 static thrust.

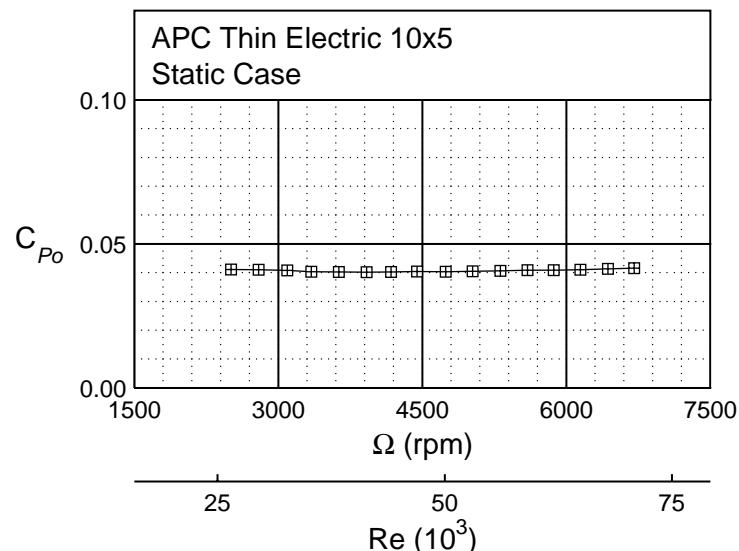
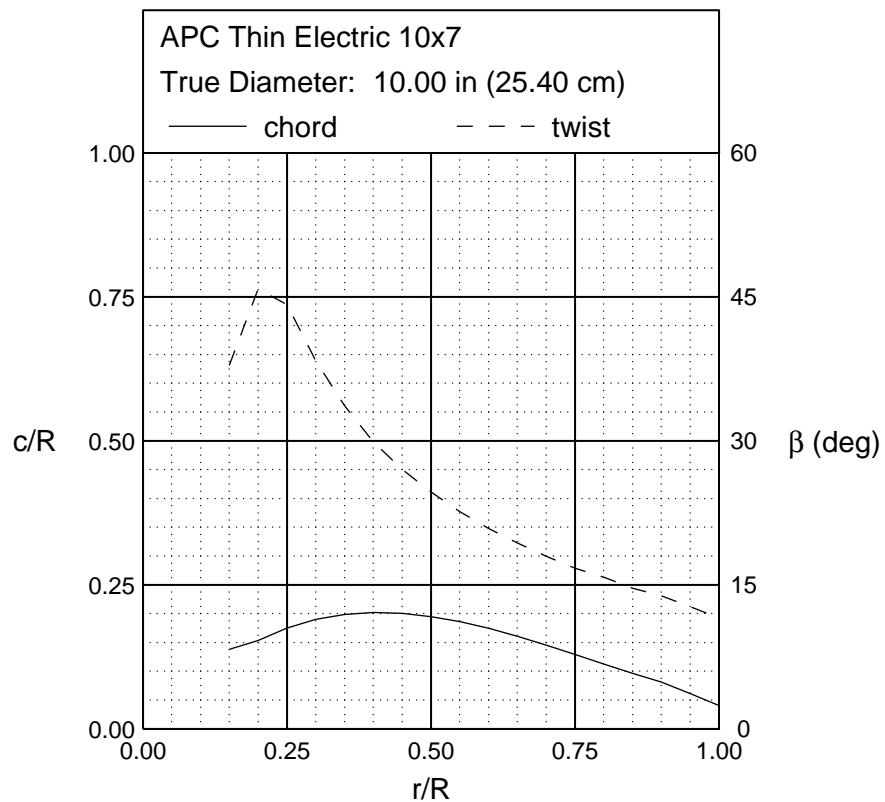


Figure 5.126: APC Thin Electric 10×5 static power.



Front View



Side View

Figure 5.127: APC Thin Electric 10×7 geometric characteristics.

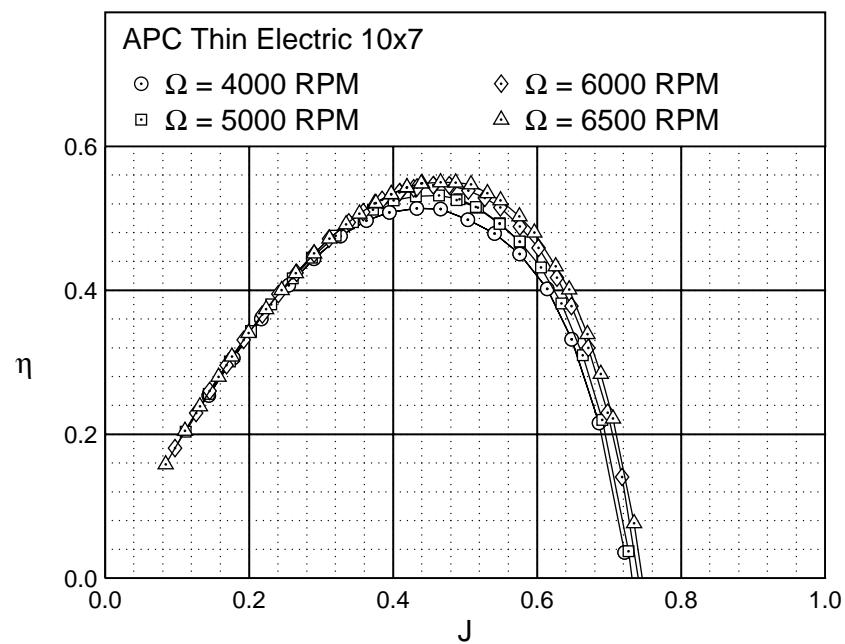


Figure 5.128: APC Thin Electric 10×7 efficiency curves.

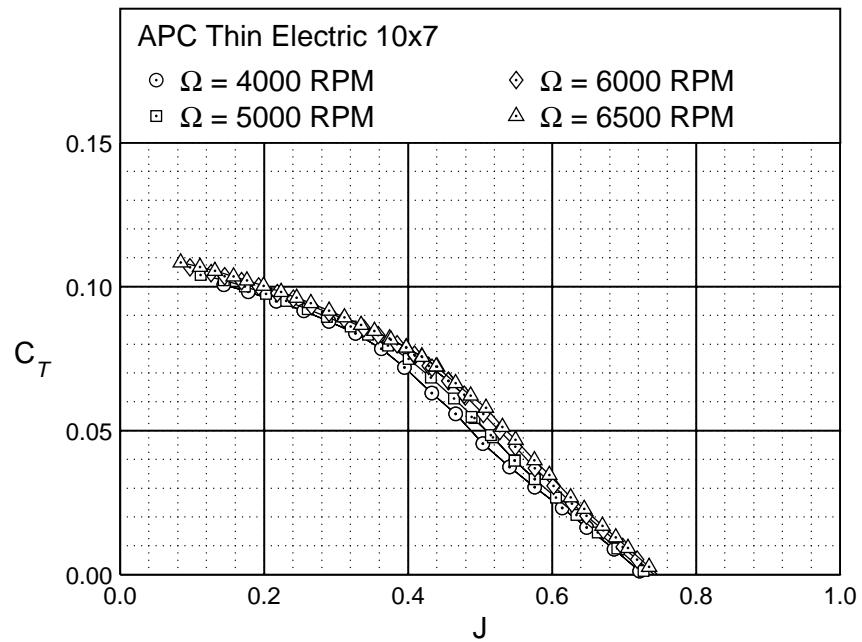


Figure 5.129: APC Thin Electric 10×7 thrust characteristics.

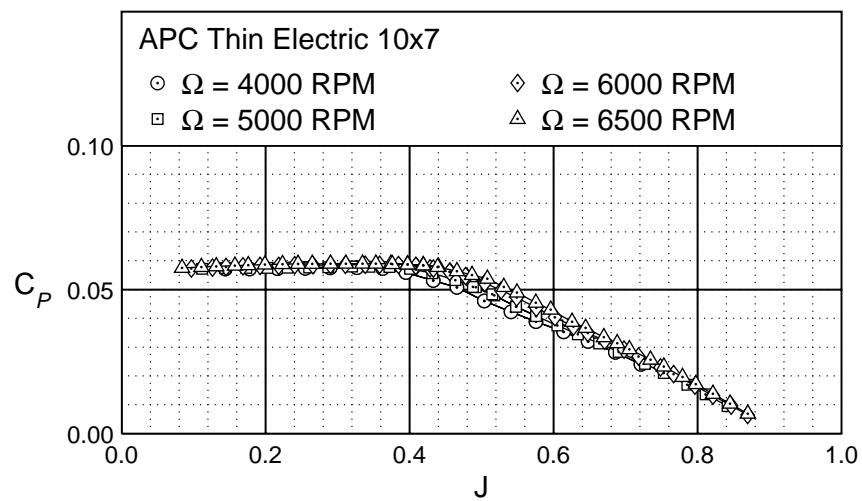


Figure 5.130: APC Thin Electric 10×7 power characteristics.

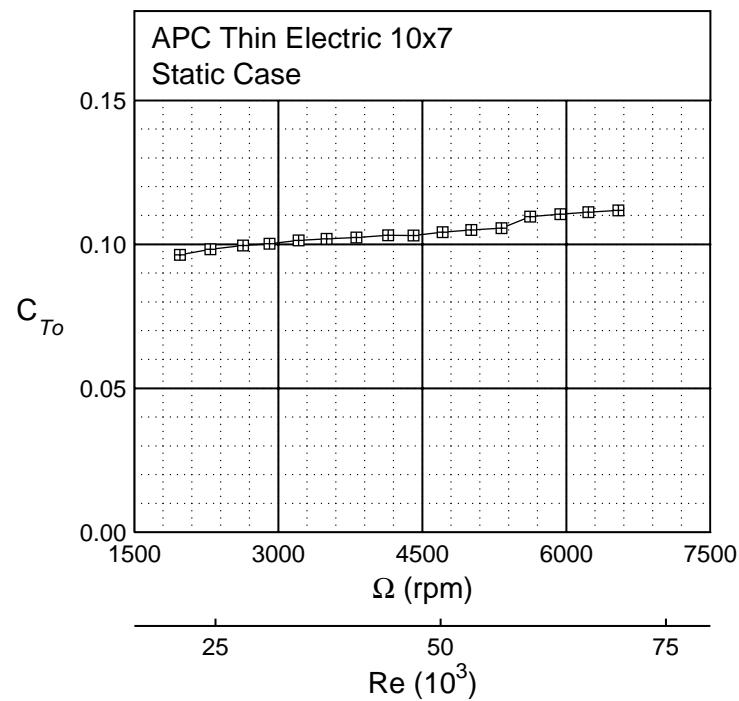


Figure 5.131: APC Thin Electric 10×7 static thrust.

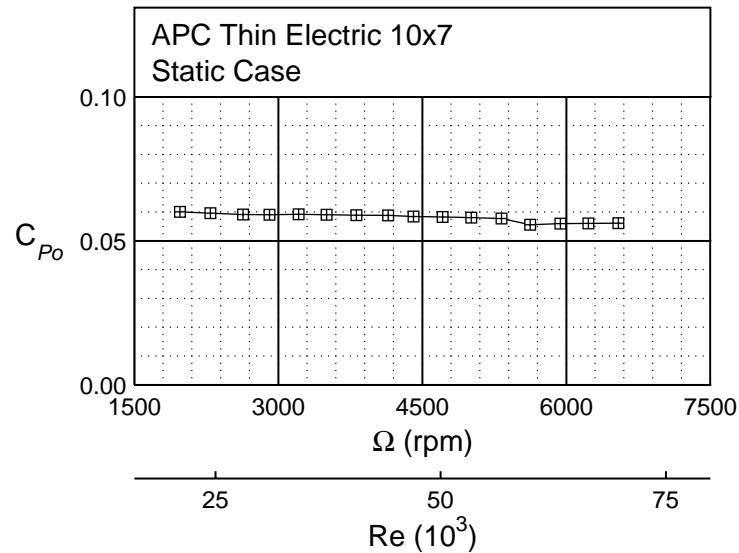
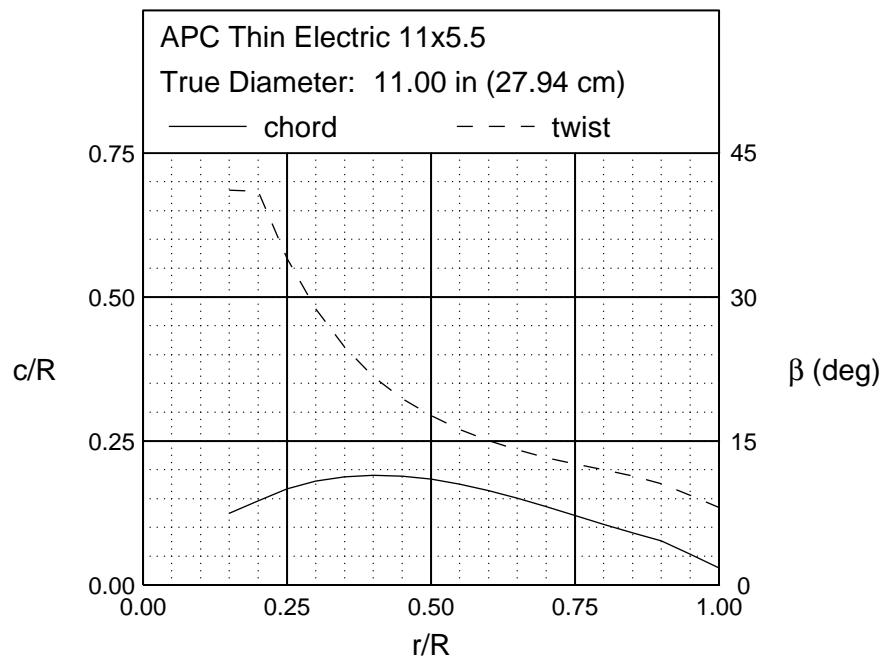


Figure 5.132: APC Thin Electric 10×7 static power.



Front View



Side View

Figure 5.133: APC Thin Electric 11×5.5 geometric characteristics.

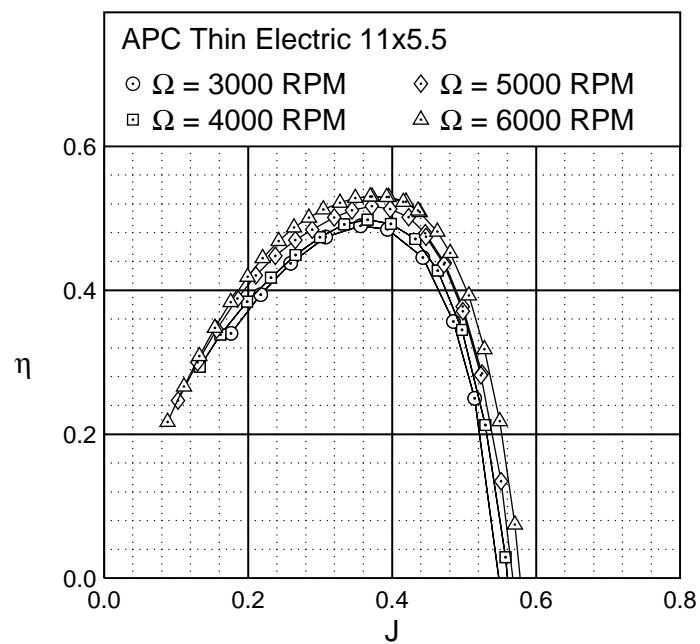


Figure 5.134: APC Thin Electric 11×5.5 efficiency curves.

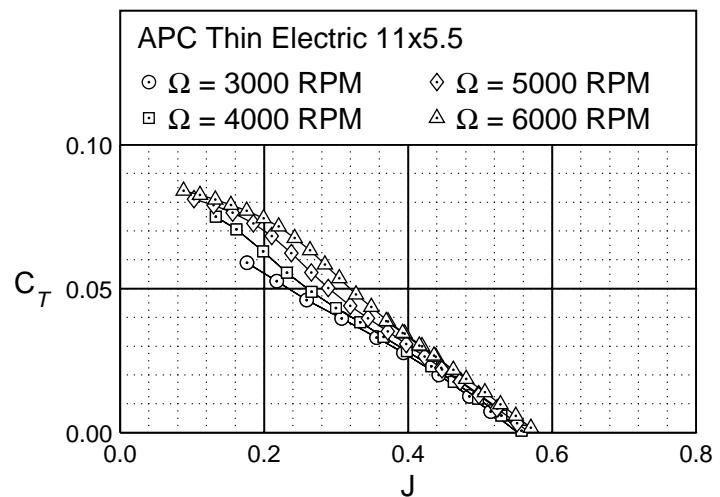


Figure 5.135: APC Thin Electric 11×5.5 thrust characteristics.

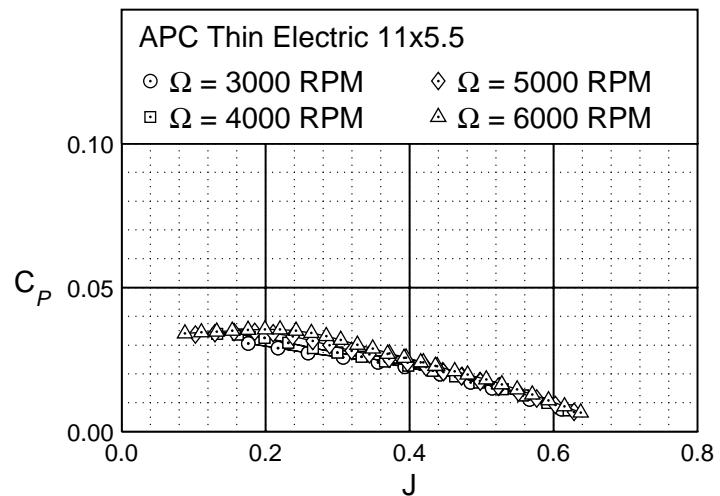


Figure 5.136: APC Thin Electric 11×5.5 power characteristics.

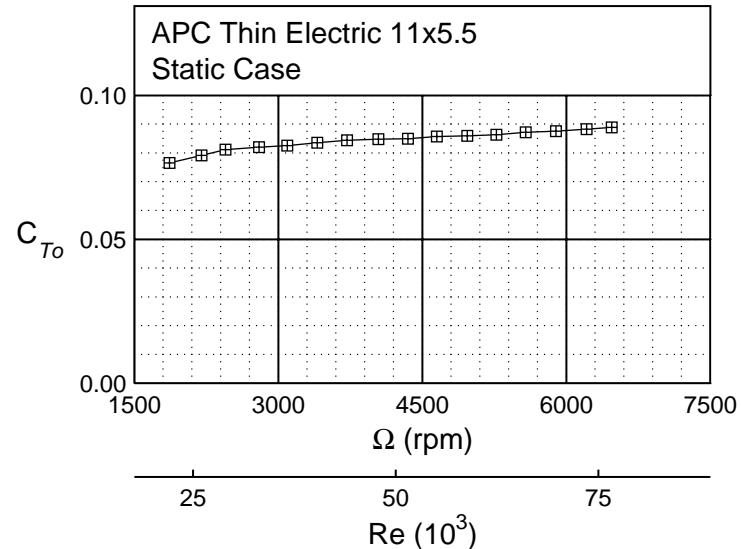


Figure 5.137: APC Thin Electric 11×5.5 static thrust.

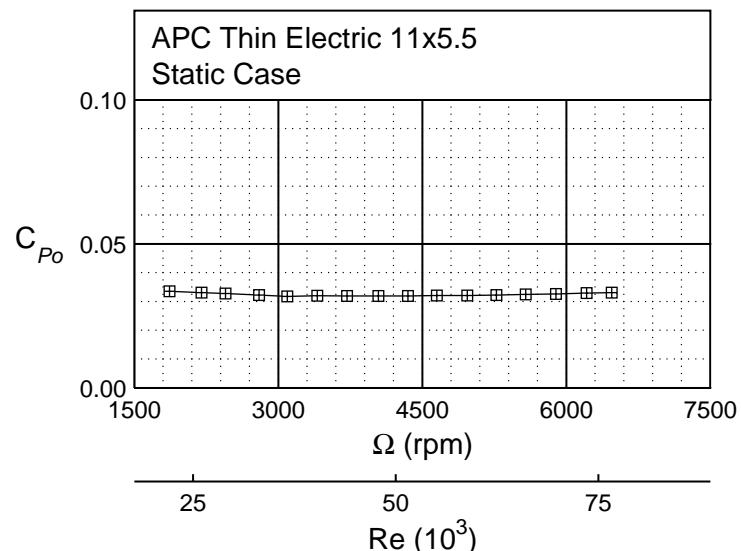
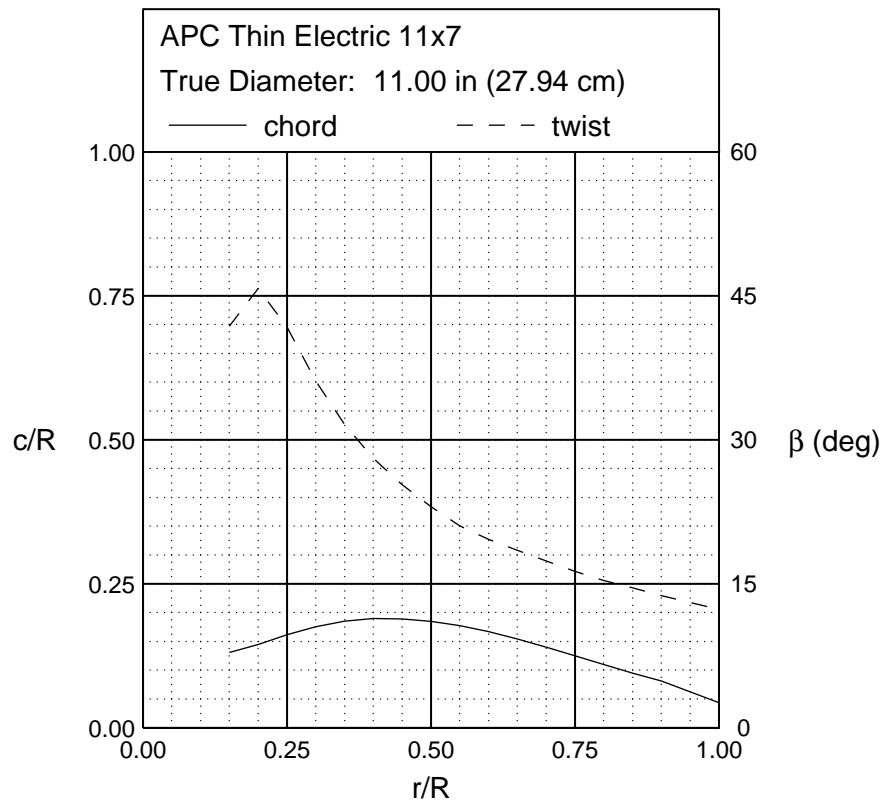


Figure 5.138: APC Thin Electric 11×5.5 static power.



Front View



Side View

Figure 5.139: APC Thin Electric 11×7 geometric characteristics.

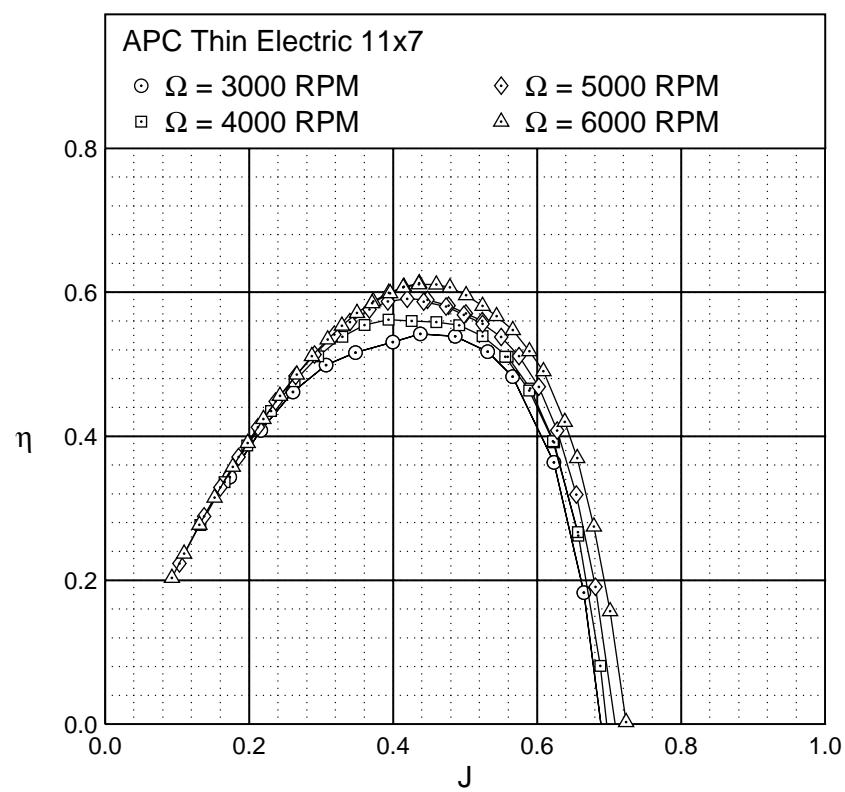


Figure 5.140: APC Thin Electric 11×7 efficiency curves.

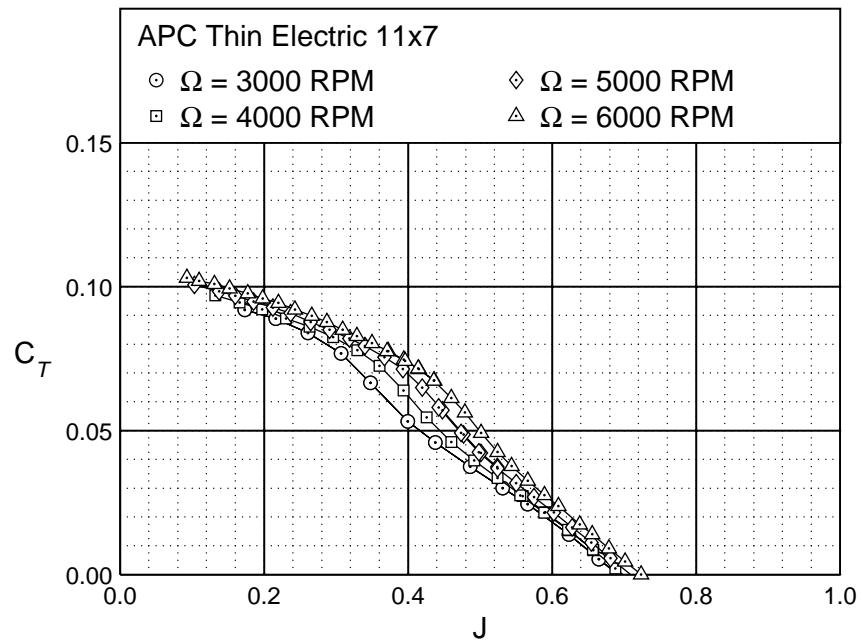


Figure 5.141: APC Thin Electric 11×7 thrust characteristics.

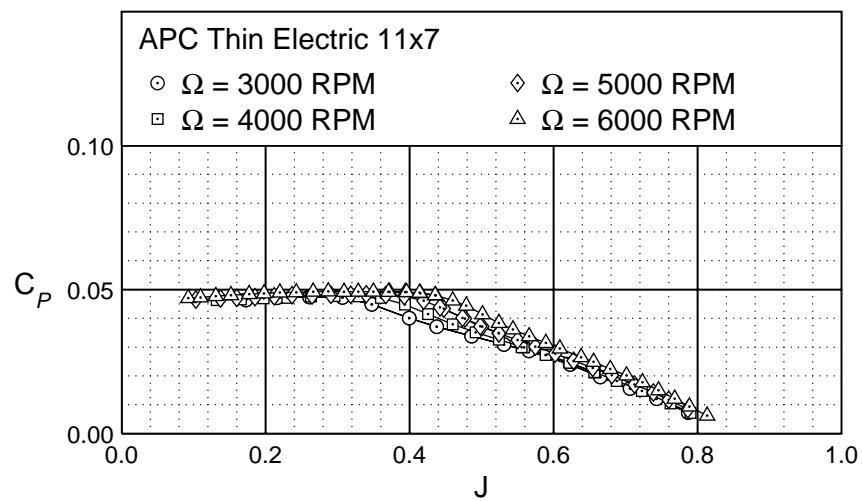


Figure 5.142: APC Thin Electric 11×7 power characteristics.

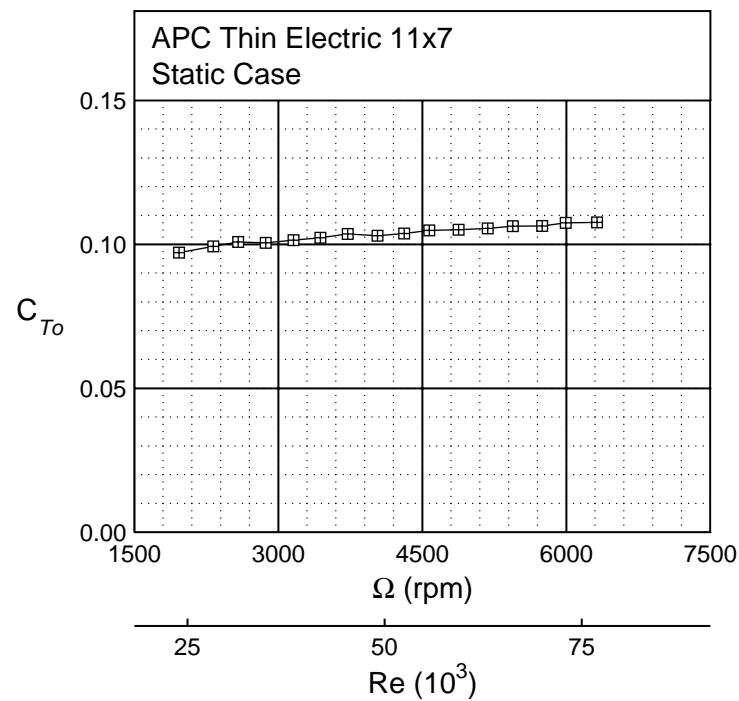


Figure 5.143: APC Thin Electric 11×7 static thrust.

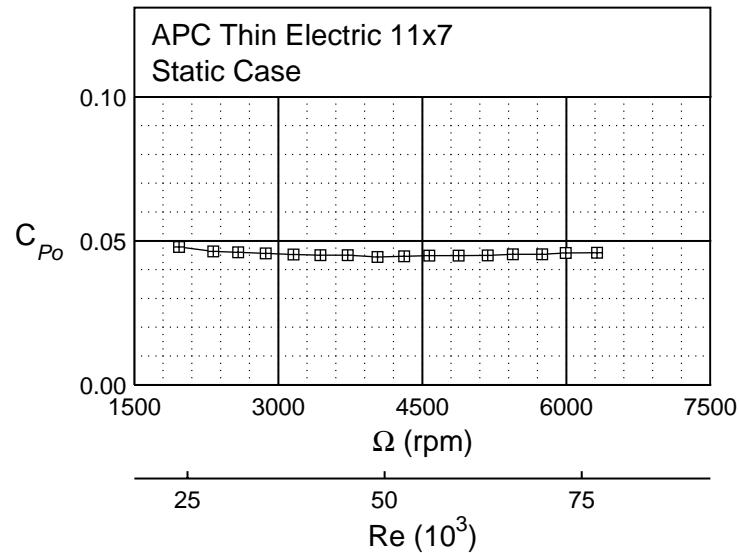
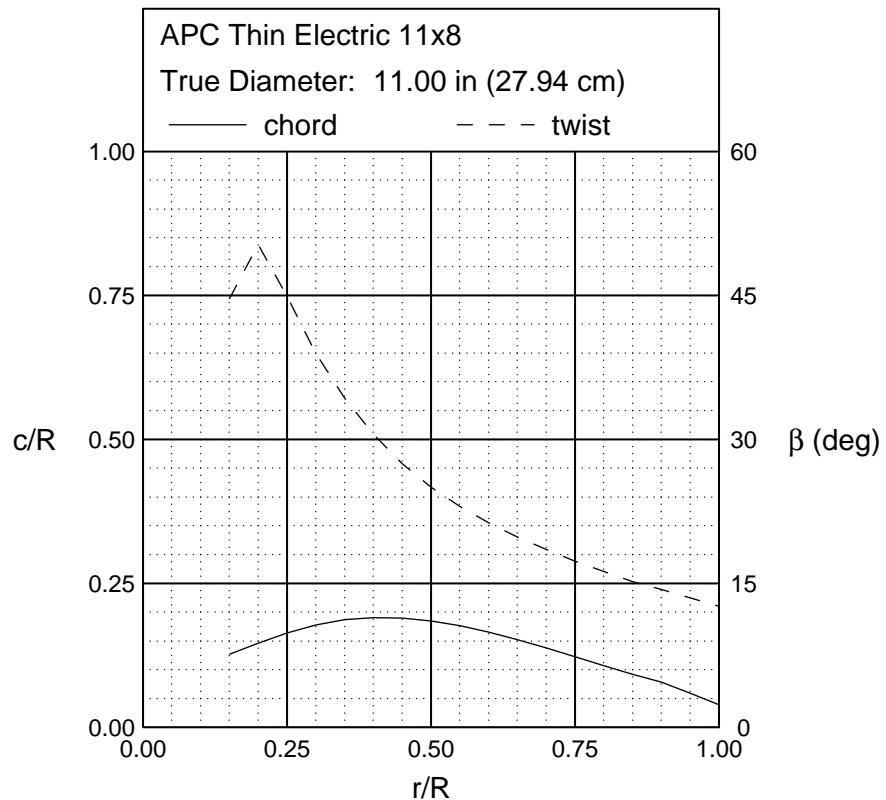


Figure 5.144: APC Thin Electric 11×7 static power.



Front View



Side View

Figure 5.145: APC Thin Electric 11×8 geometric characteristics.

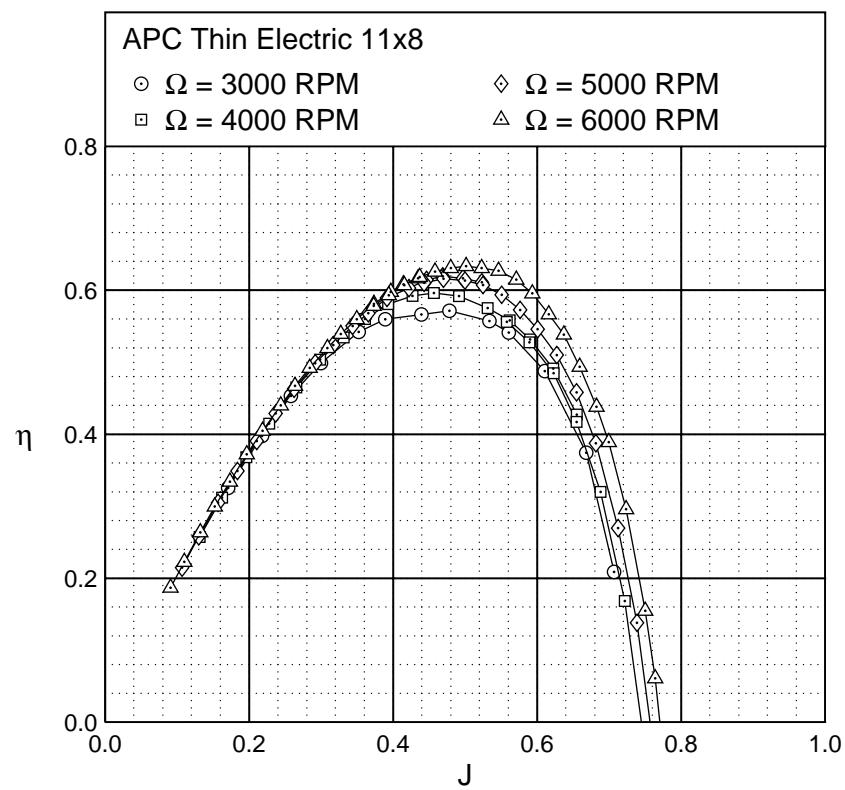


Figure 5.146: APC Thin Electric 11×8 efficiency curves.

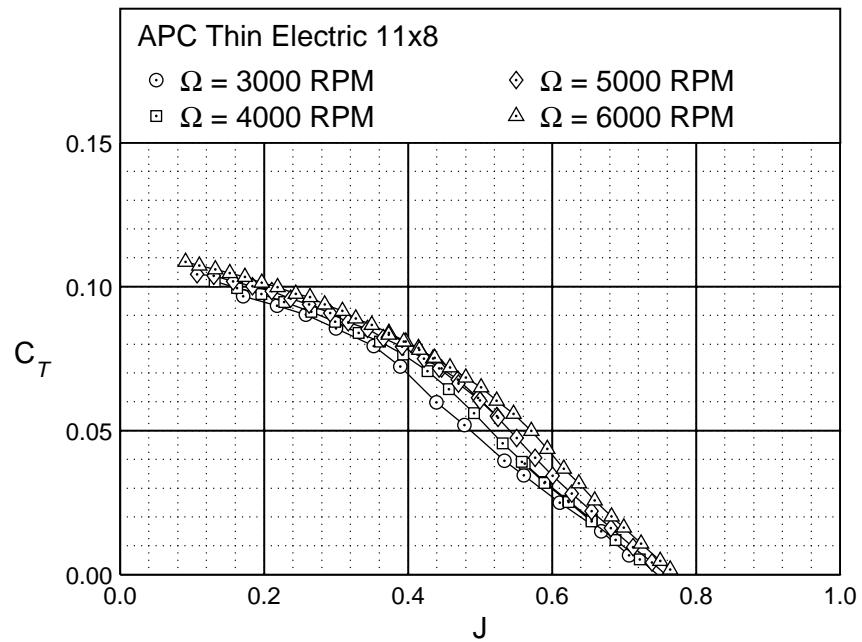


Figure 5.147: APC Thin Electric 11×8 thrust characteristics.

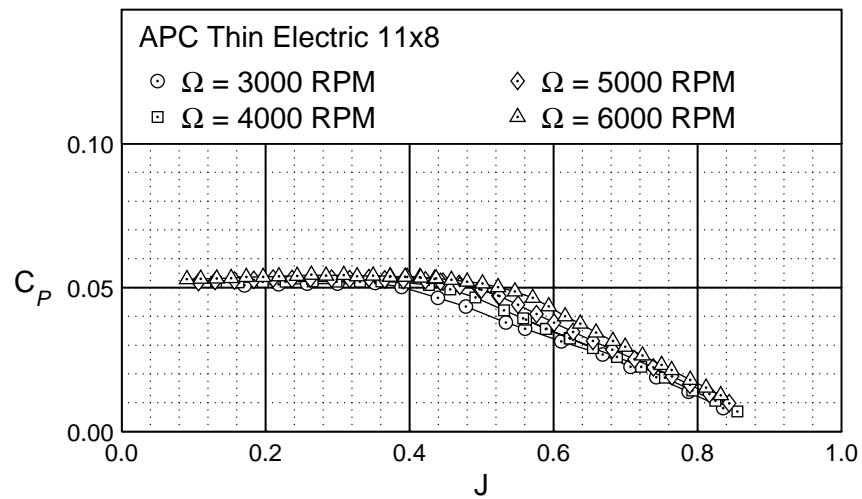


Figure 5.148: APC Thin Electric 11×8 power characteristics.

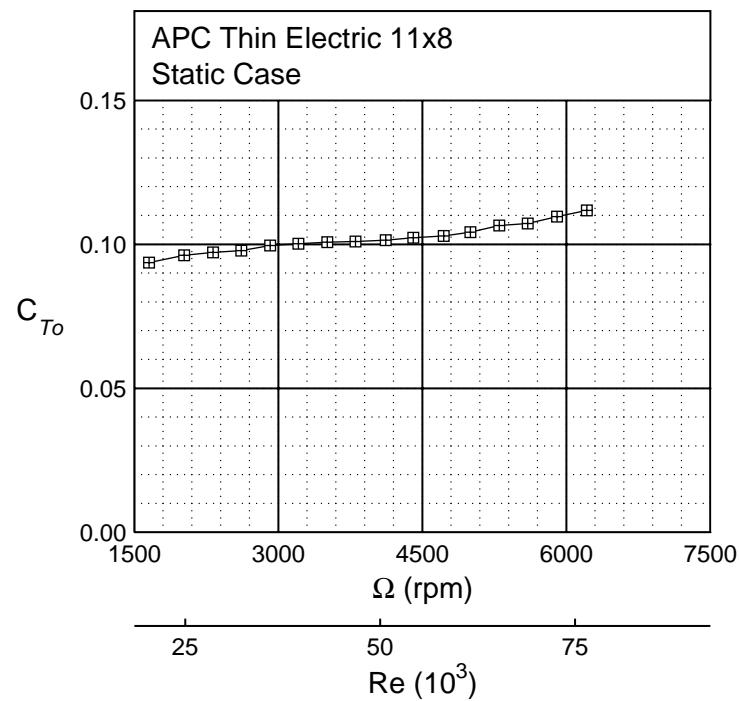


Figure 5.149: APC Thin Electric 11×8 static thrust.

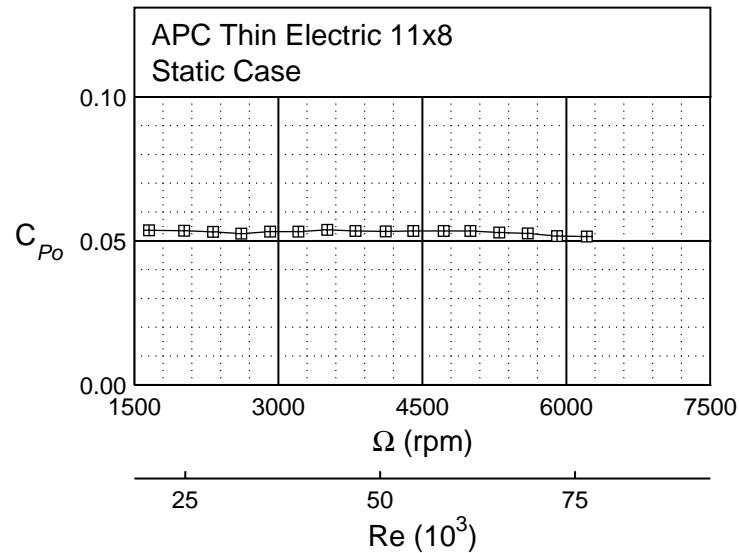
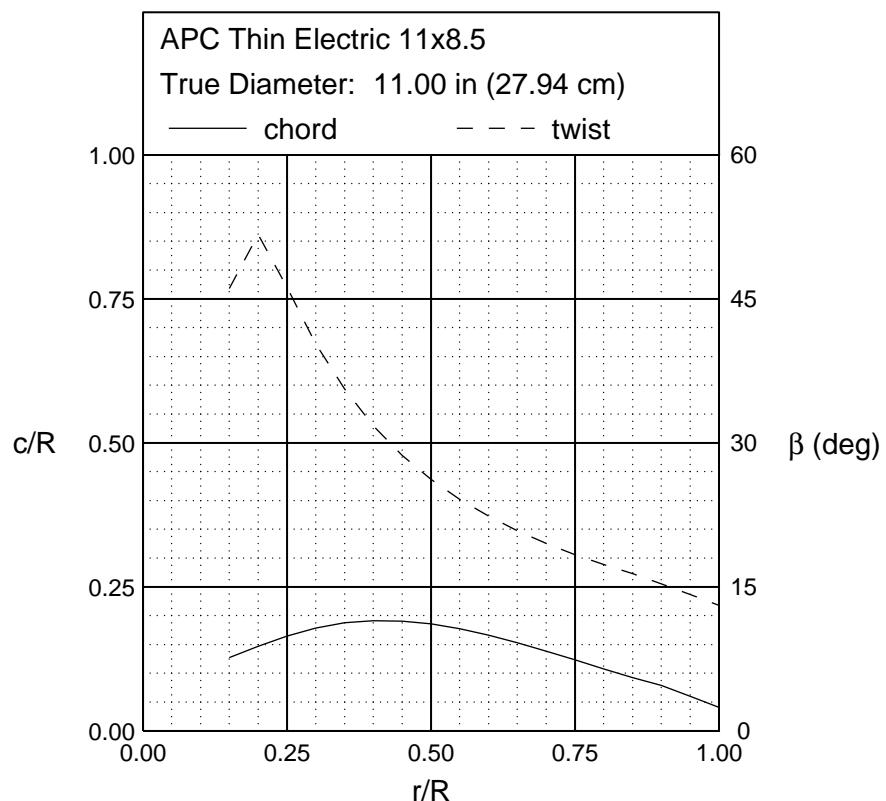


Figure 5.150: APC Thin Electric 11×8 static power.



Front View



Side View

Figure 5.151: APC Thin Electric 11×8.5 geometric characteristics.

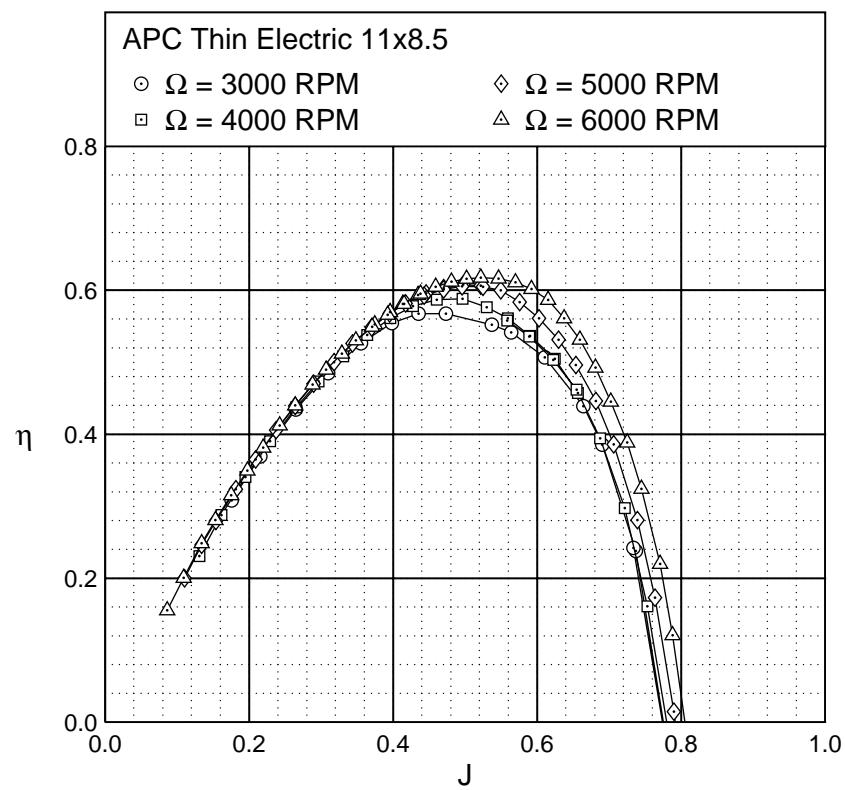


Figure 5.152: APC Thin Electric 11×8.5 efficiency curves.

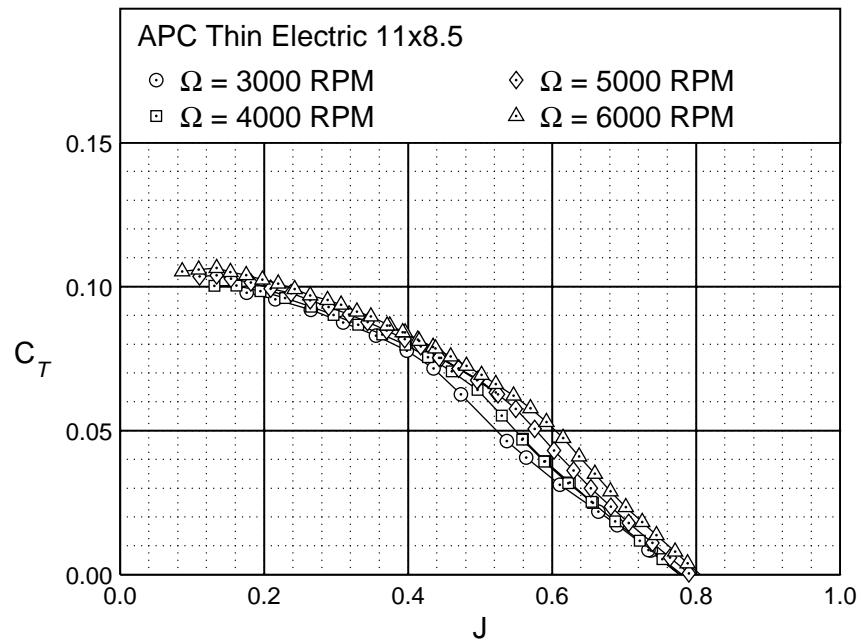


Figure 5.153: APC Thin Electric 11×8.5 thrust characteristics.

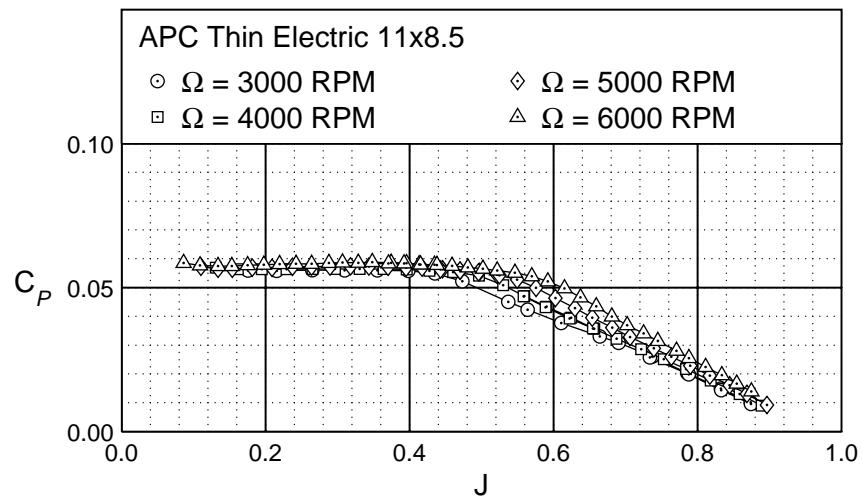


Figure 5.154: APC Thin Electric 11×8.5 power characteristics.

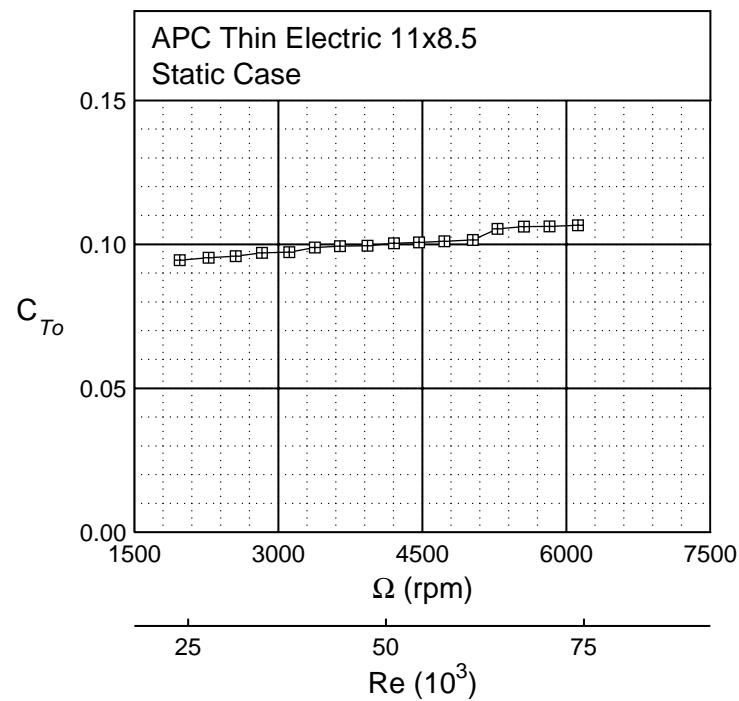


Figure 5.155: APC Thin Electric 11×8.5 static thrust.

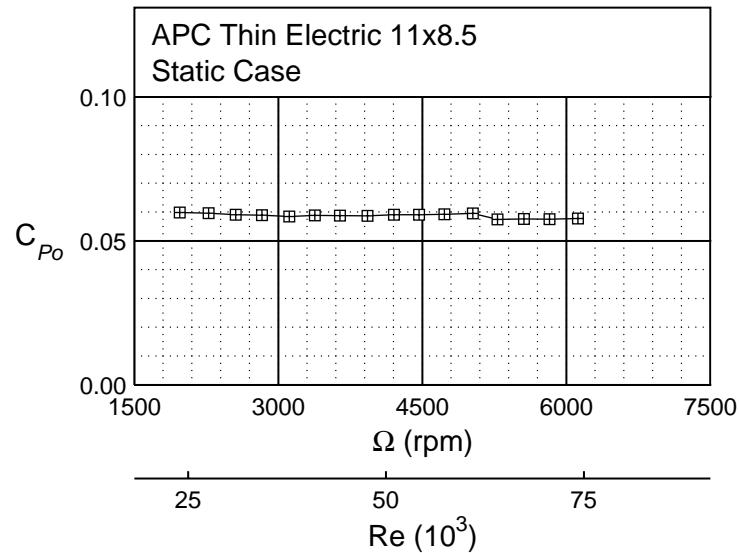
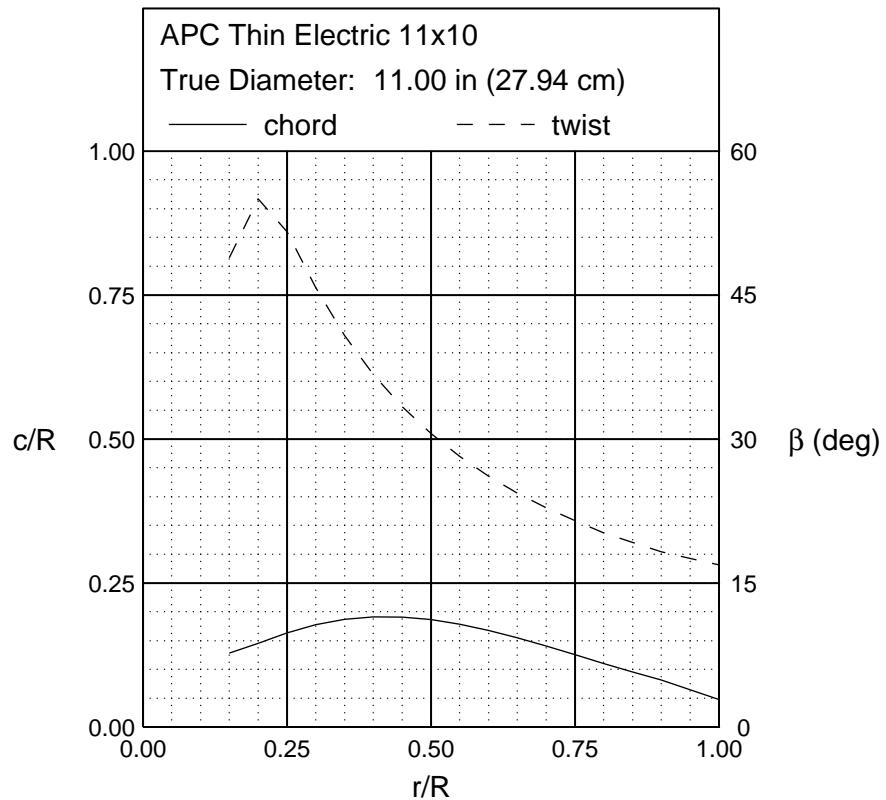


Figure 5.156: APC Thin Electric 11×8.5 static power.



Front View



Side View

Figure 5.157: APC Thin Electric 11×10 geometric characteristics.

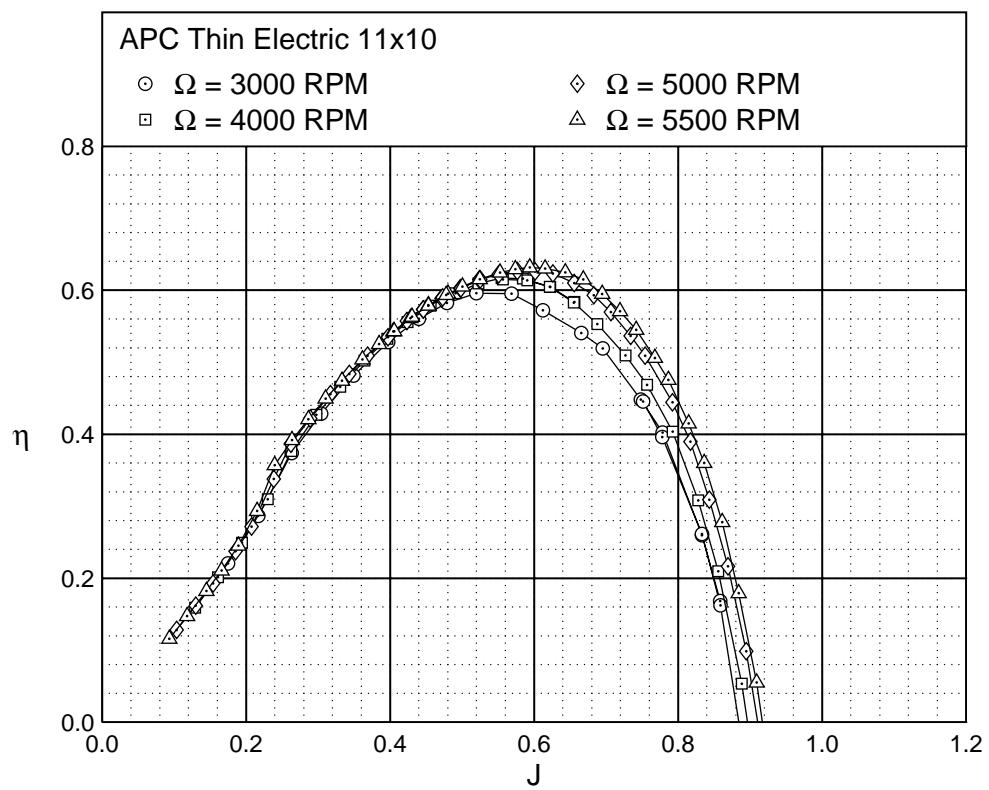


Figure 5.158: APC Thin Electric 11×10 efficiency curves.

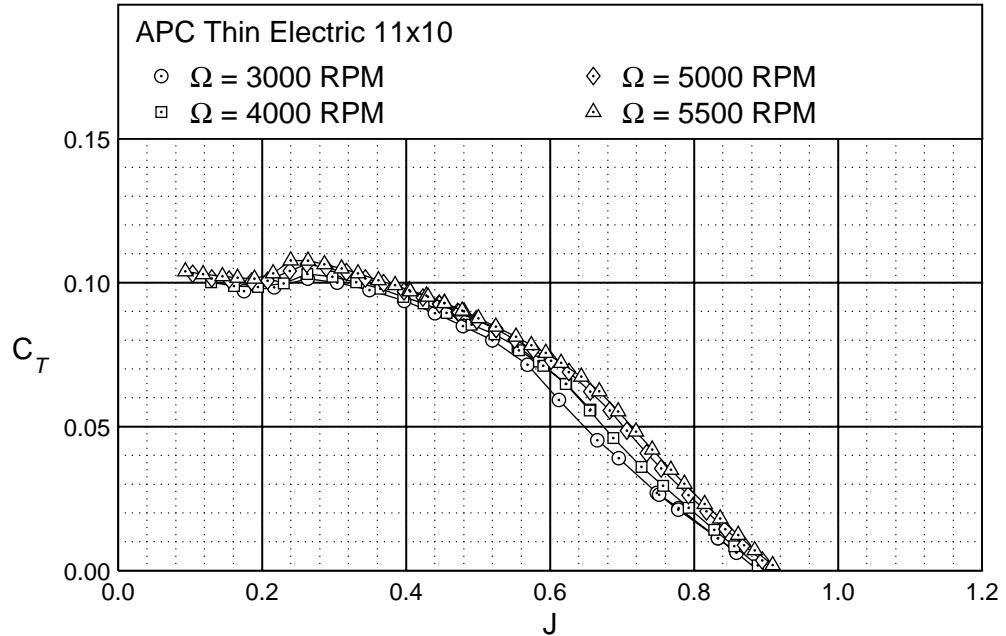


Figure 5.159: APC Thin Electric 11×10 thrust characteristics.

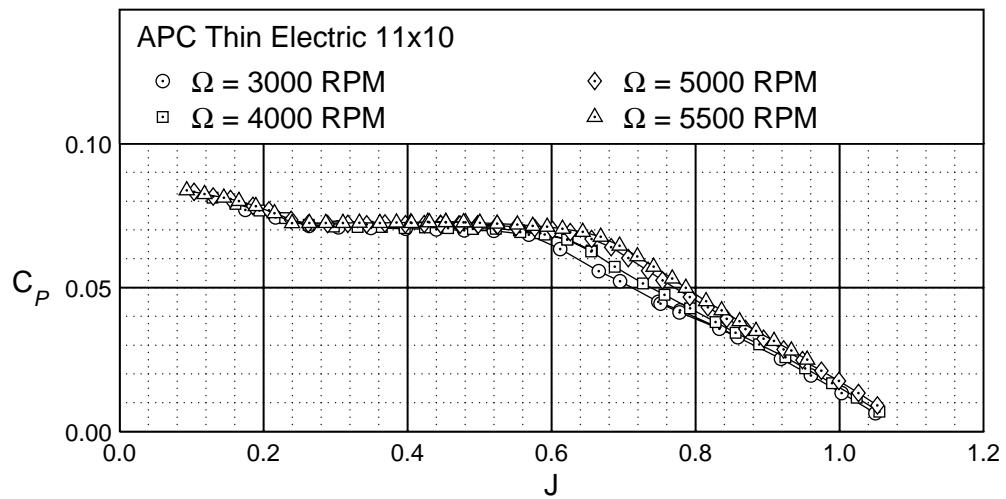


Figure 5.160: APC Thin Electric 11×10 power characteristics.

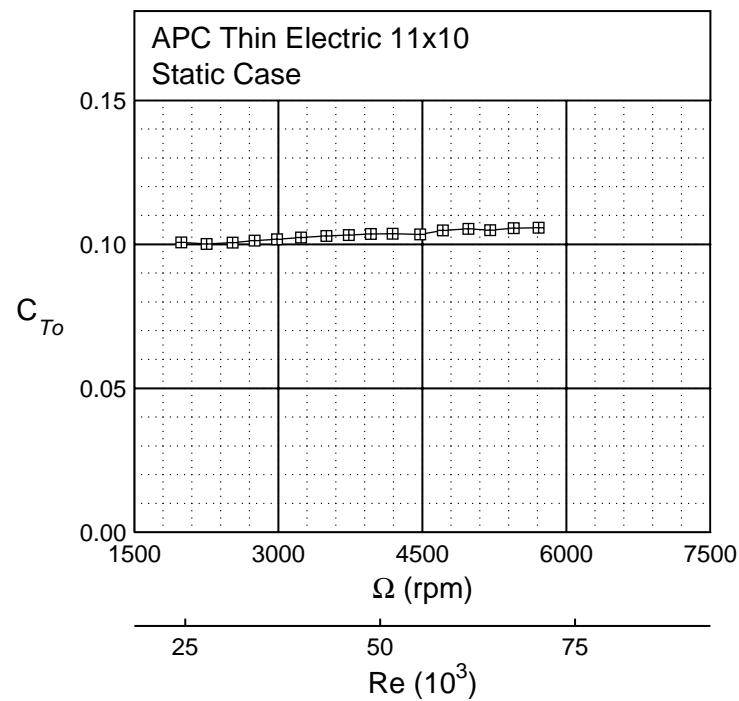


Figure 5.161: APC Thin Electric 11×10 static thrust.

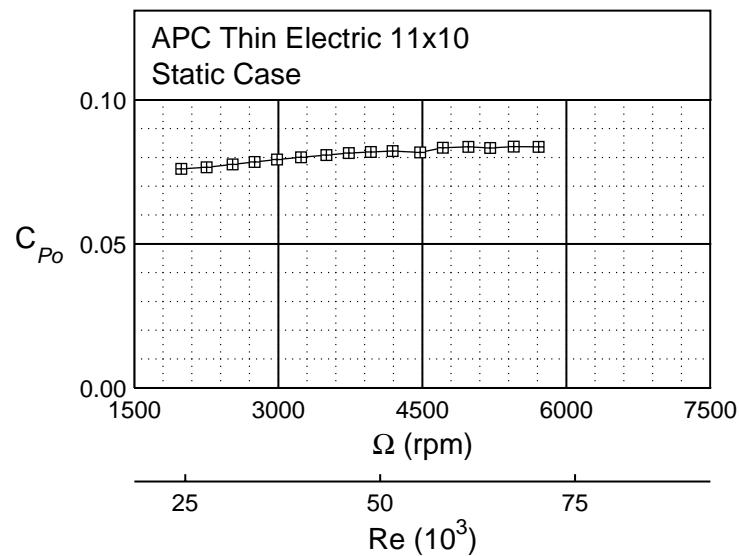
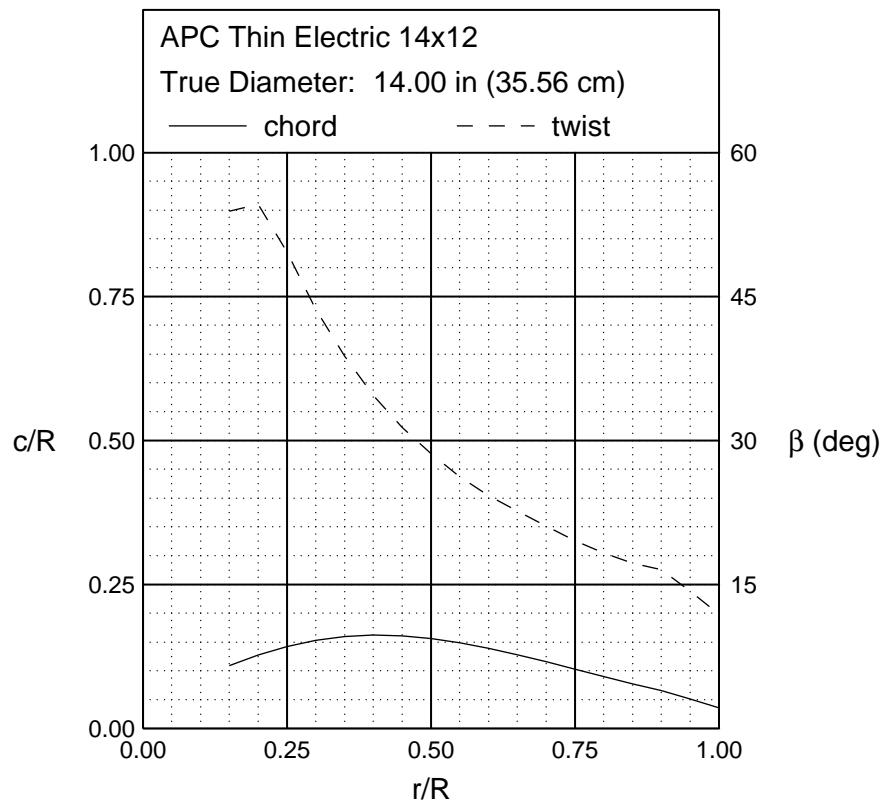


Figure 5.162: APC Thin Electric 11×10 static power.



Front View



Side View

Figure 5.163: APC Thin Electric 14×12 geometric characteristics.

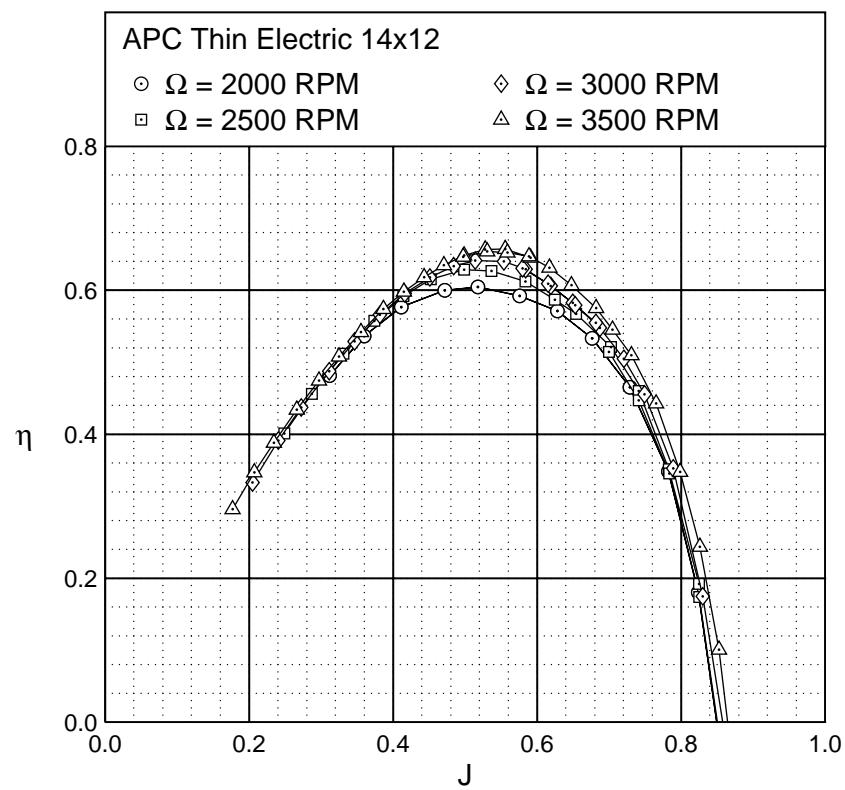


Figure 5.164: APC Thin Electric 14×12 efficiency curves.

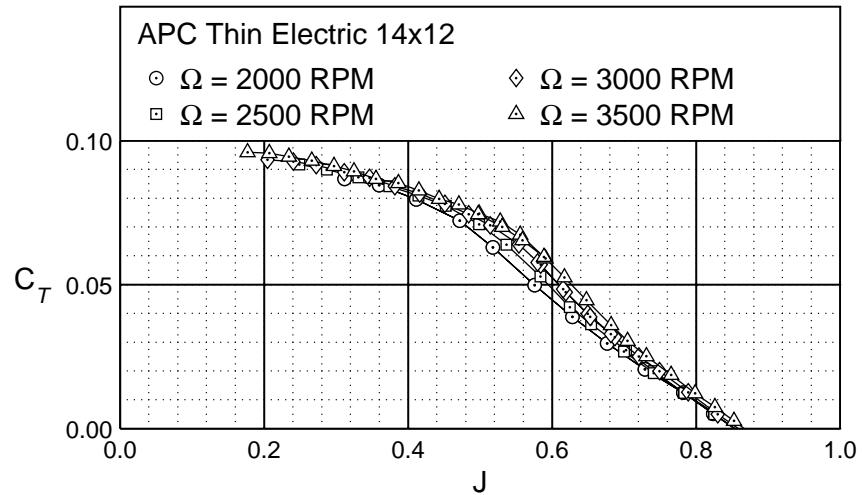


Figure 5.165: APC Thin Electric 14×12 thrust characteristics.

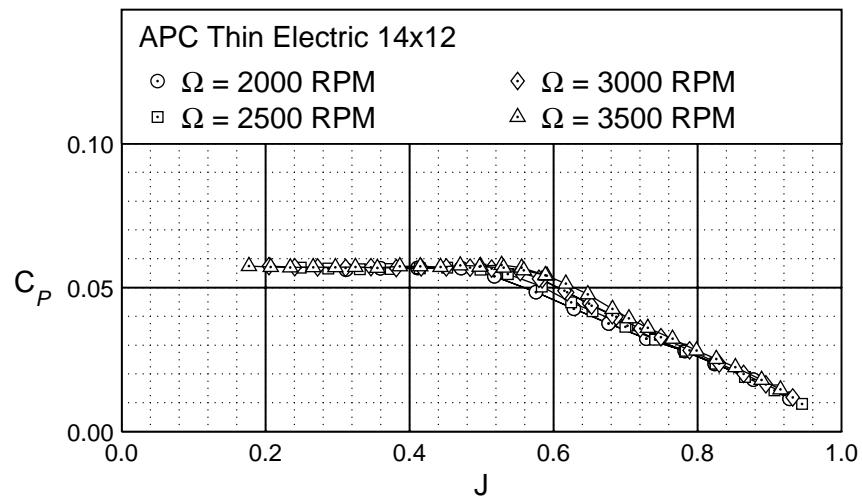


Figure 5.166: APC Thin Electric 14×12 power characteristics.

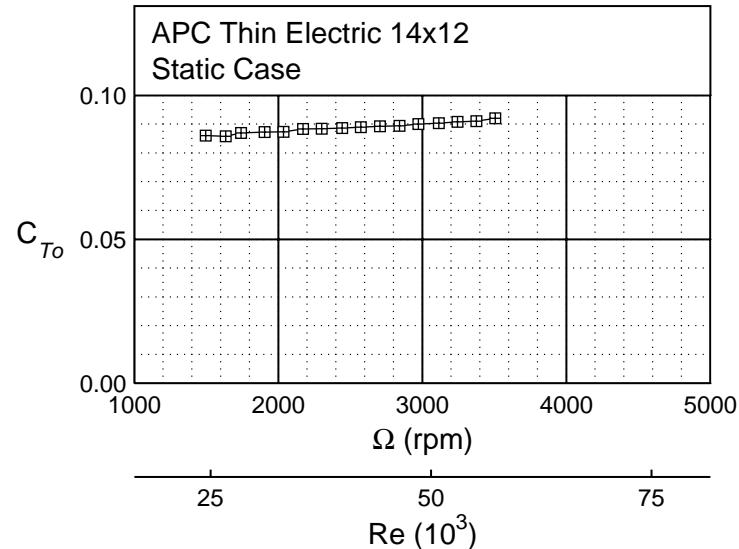


Figure 5.167: APC Thin Electric 14×12 static thrust.

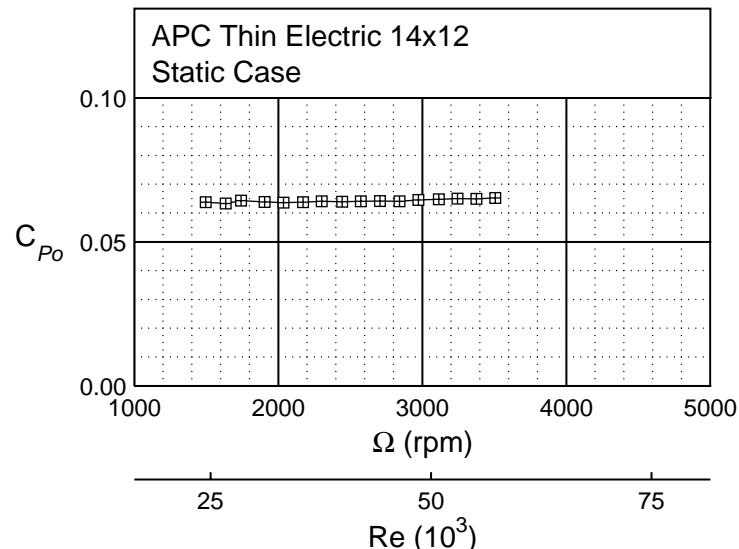
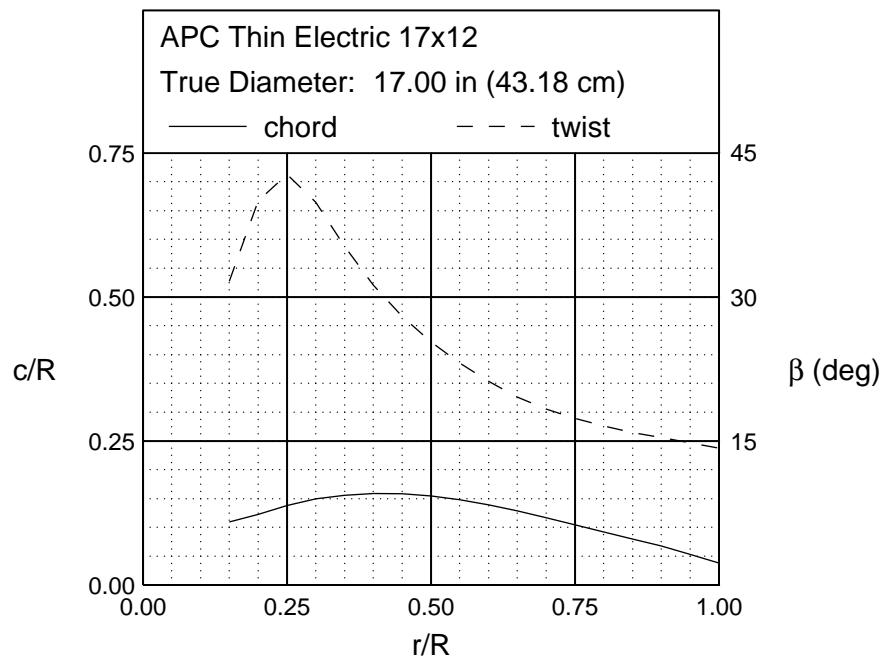


Figure 5.168: APC Thin Electric 14×12 static power.



Front View



Side View

Figure 5.169: APC Thin Electric 17×12 geometric characteristics.

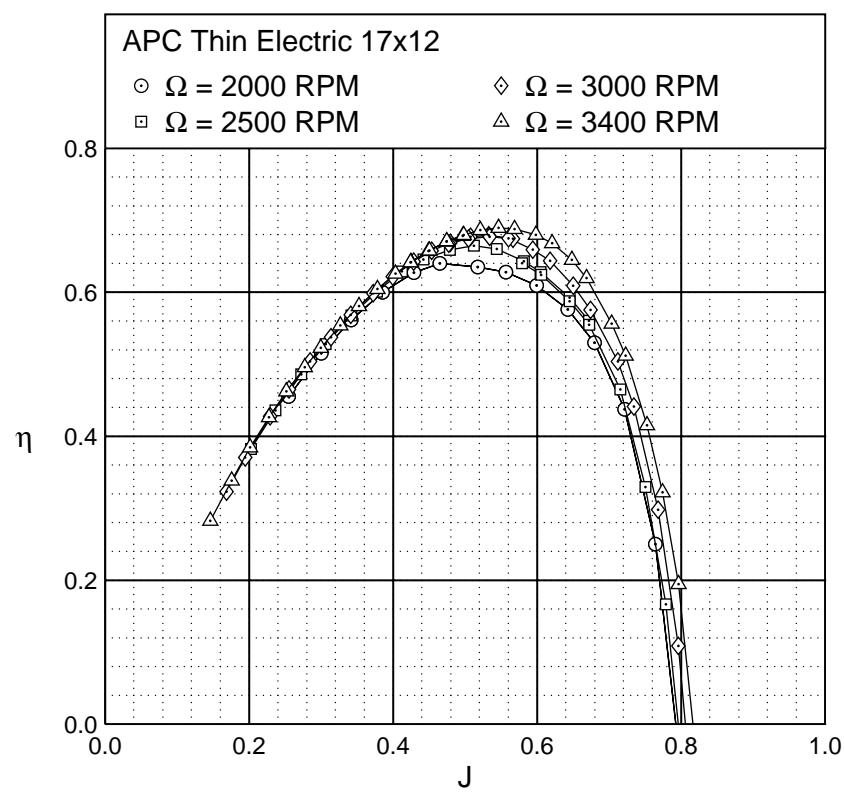


Figure 5.170: APC Thin Electric 17×12 efficiency curves.

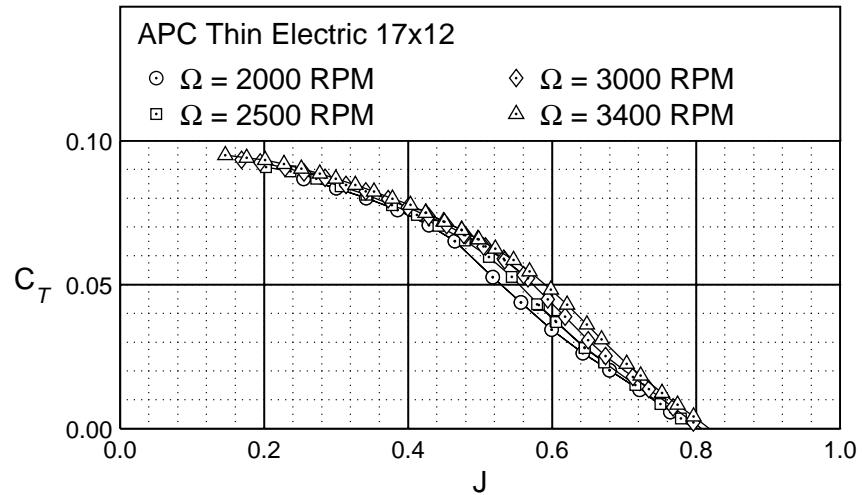


Figure 5.171: APC Thin Electric 17×12 thrust characteristics.

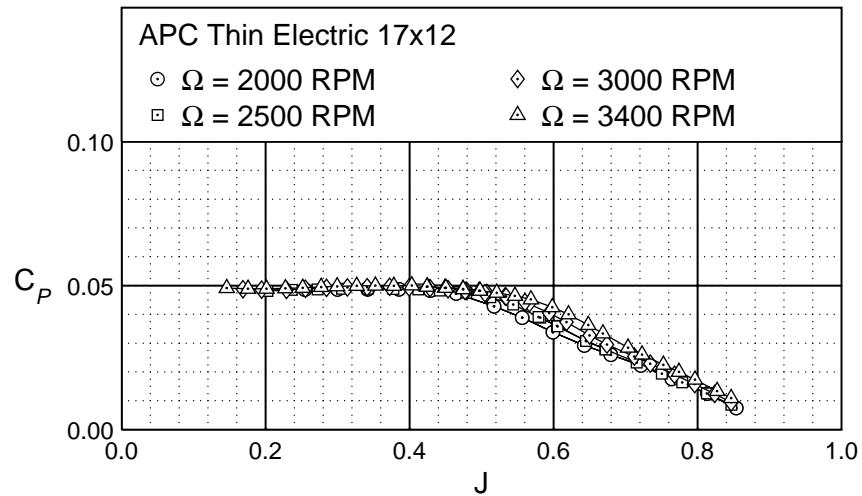


Figure 5.172: APC Thin Electric 17×12 power characteristics.

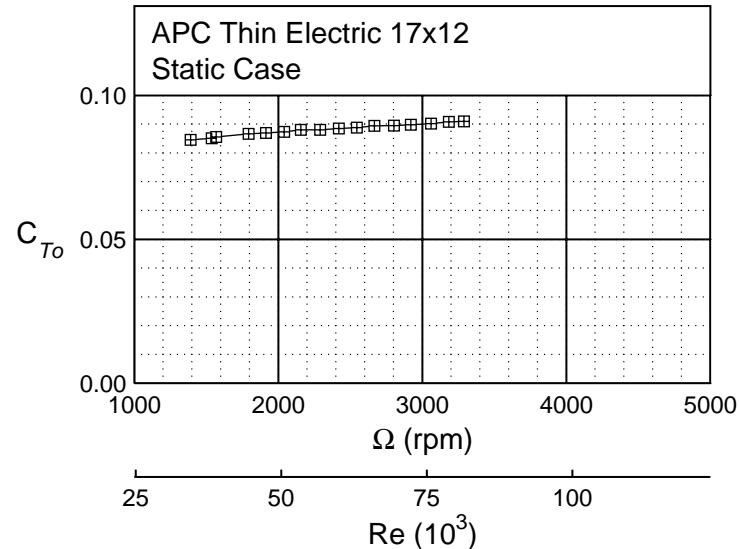


Figure 5.173: APC Thin Electric 17×12 static thrust.

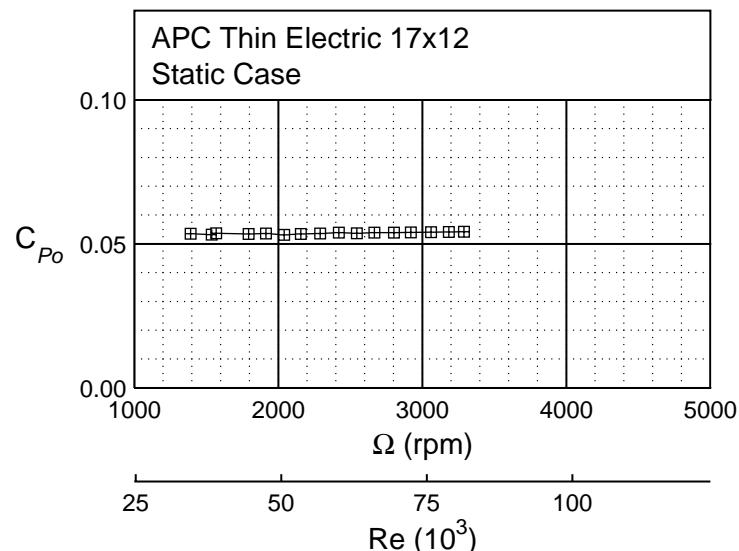
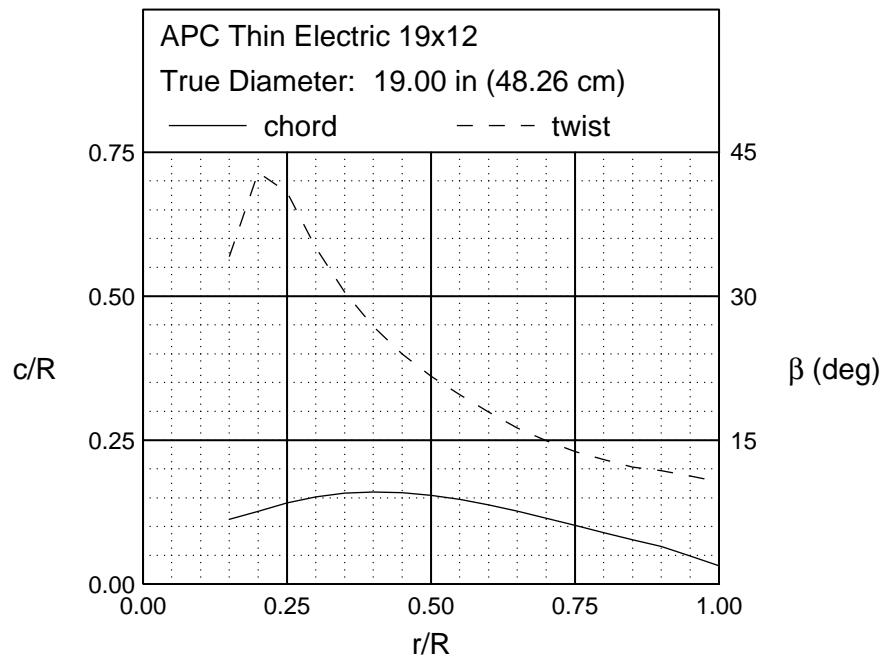


Figure 5.174: APC Thin Electric 17×12 static power.



Front View



Side View

Figure 5.175: APC Thin Electric 19×12 geometric characteristics.

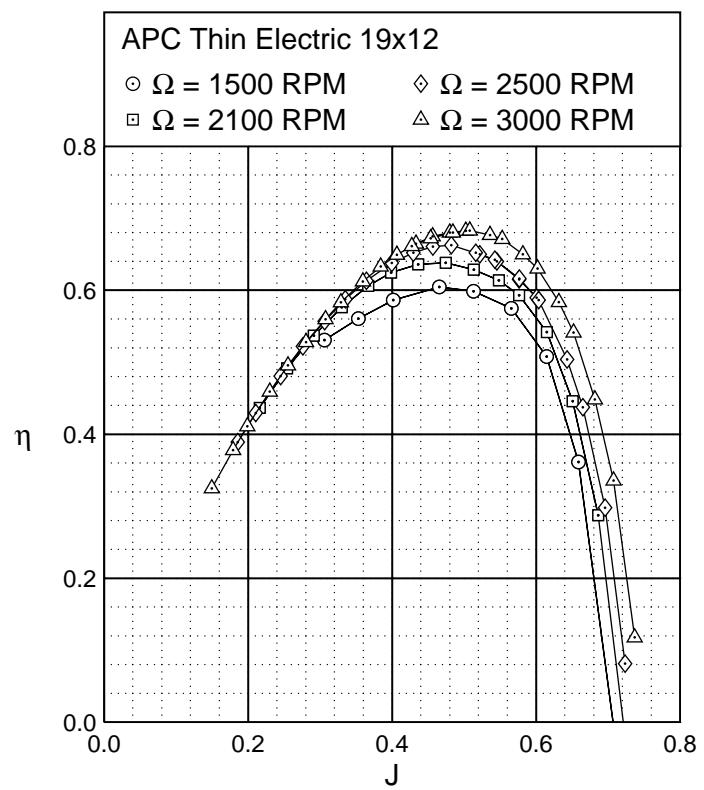


Figure 5.176: APC Thin Electric 19×12 efficiency curves.

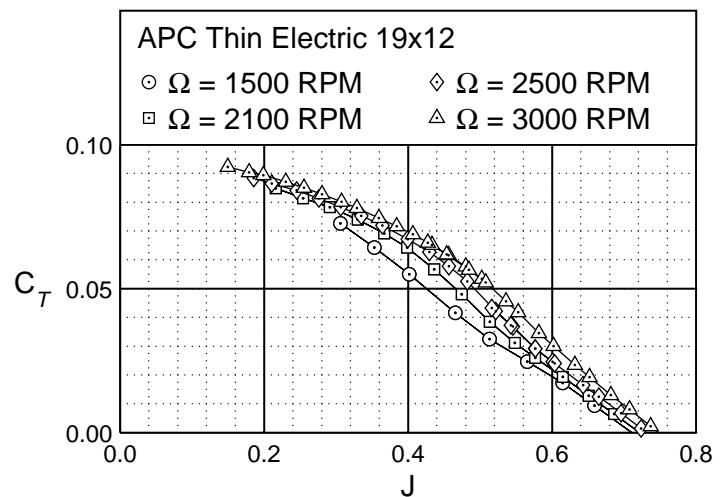


Figure 5.177: APC Thin Electric 19×12 thrust characteristics.

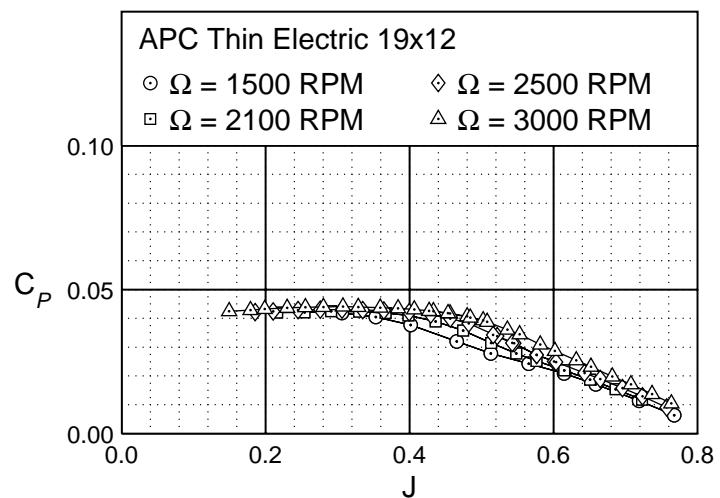


Figure 5.178: APC Thin Electric 19×12 power characteristics.

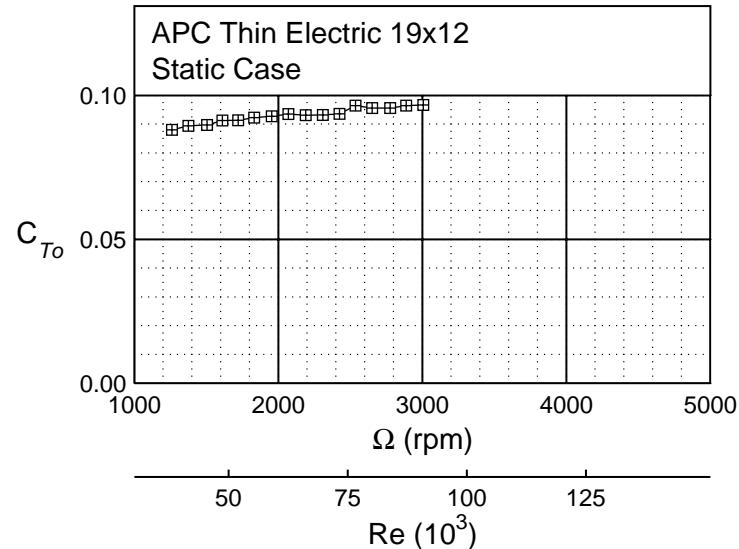


Figure 5.179: APC Thin Electric 19×12 static thrust.

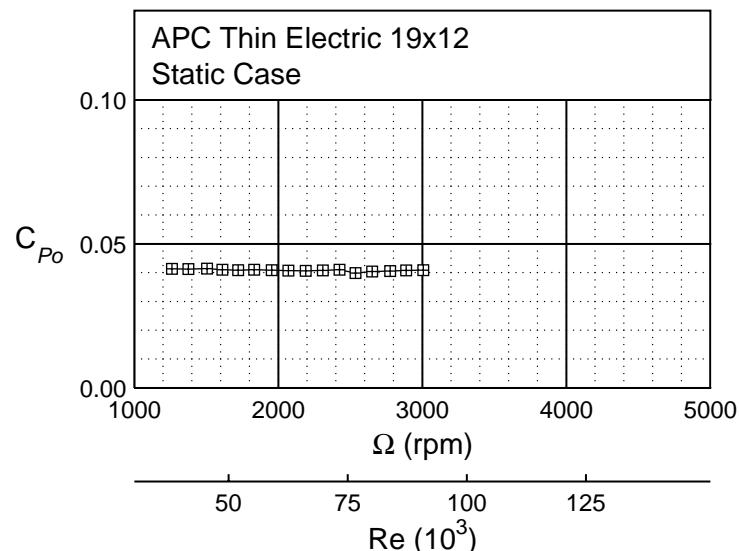
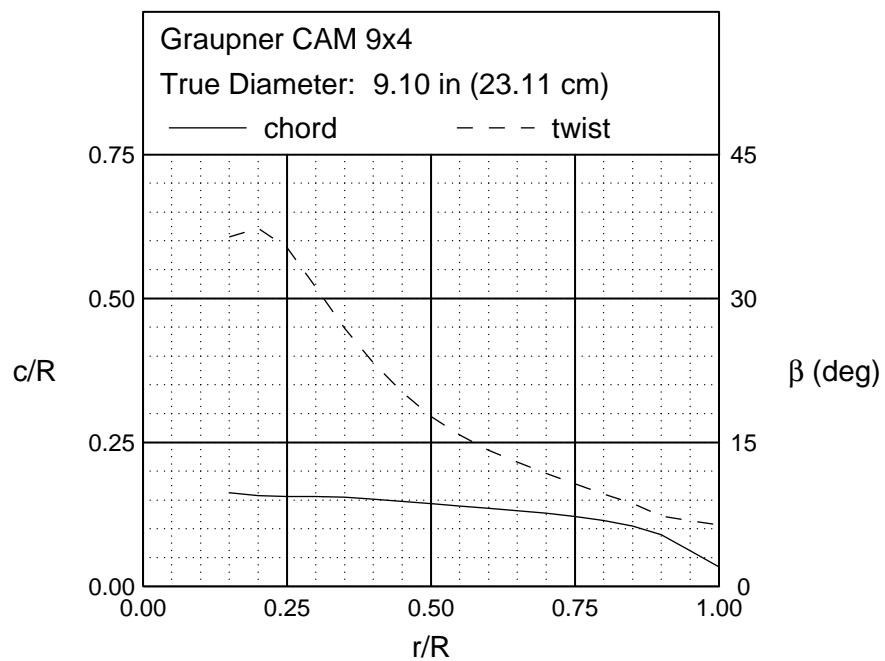


Figure 5.180: APC Thin Electric 19×12 static power.



Front View



Side View

Figure 5.181: Graupner CAM Prop 9×4 geometric characteristics.

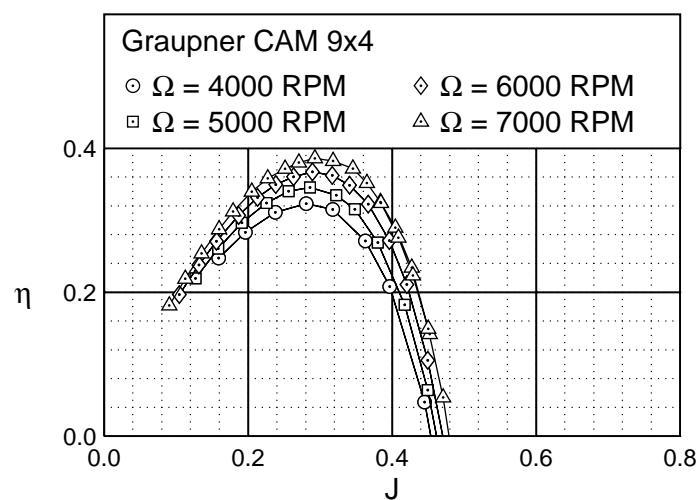


Figure 5.182: Graupner CAM Prop 9×4 efficiency curves.

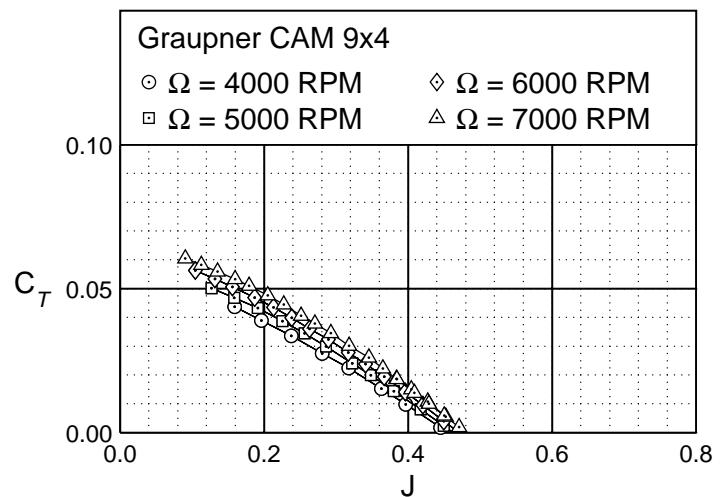


Figure 5.183: Graupner CAM Prop 9×4 thrust characteristics.

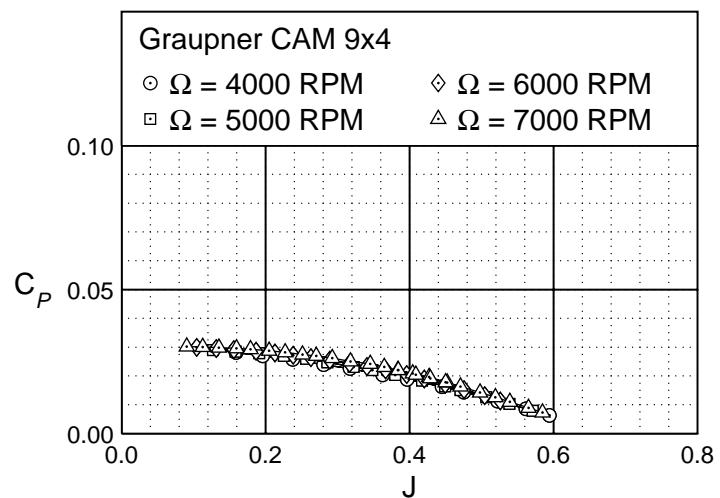


Figure 5.184: Graupner CAM Prop 9×4 power characteristics.

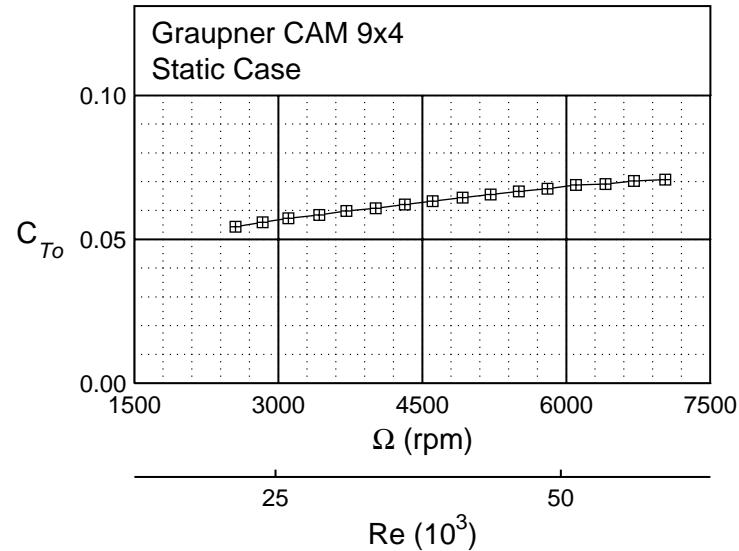


Figure 5.185: Graupner CAM Prop 9×4 static thrust.

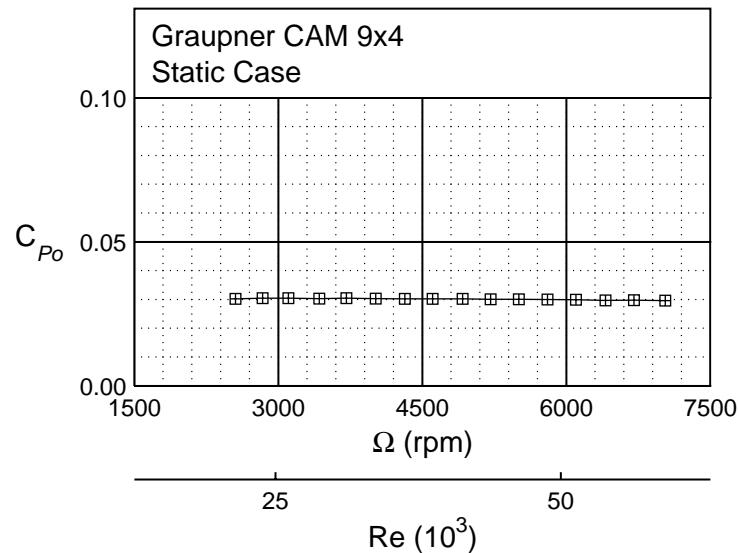
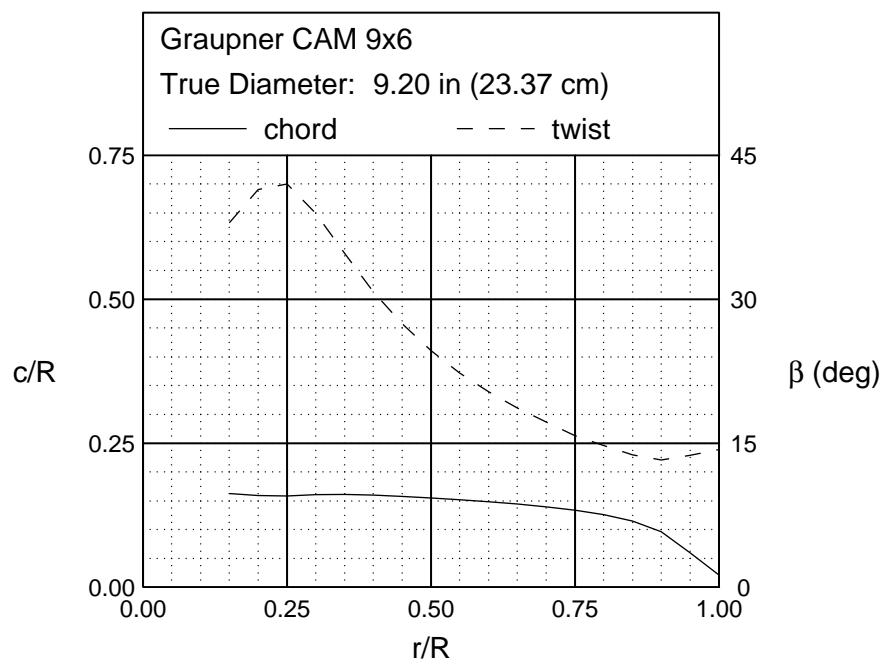


Figure 5.186: Graupner CAM Prop 9×4 static power.



Front View



Side View

Figure 5.187: Graupner CAM Prop 9×6 geometric characteristics.

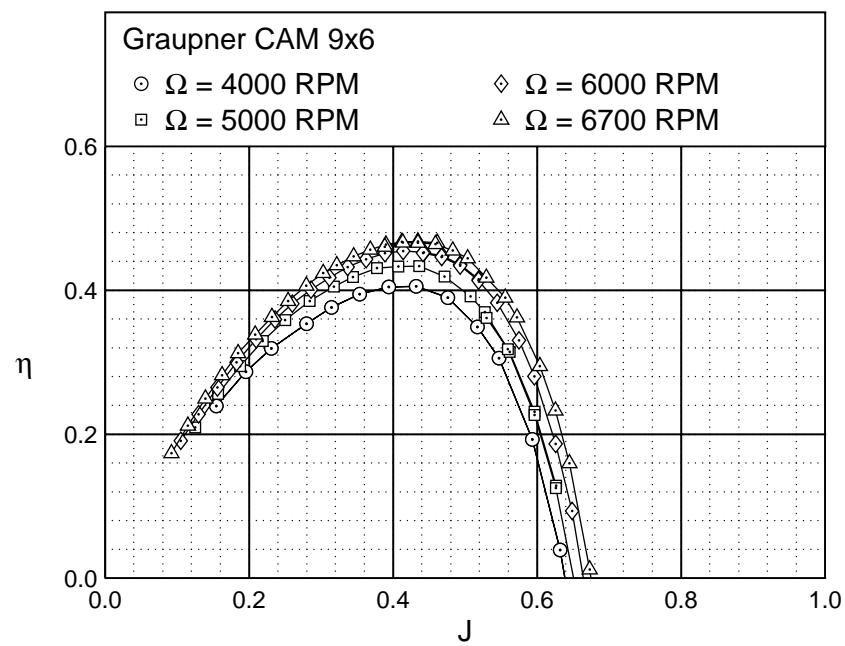


Figure 5.188: Graupner CAM Prop 9×6 efficiency curves.

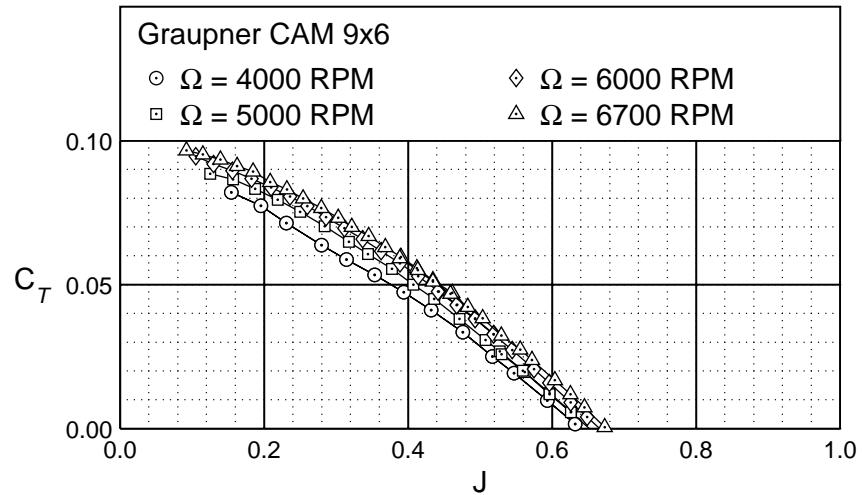


Figure 5.189: Graupner CAM Prop 9×6 thrust characteristics.

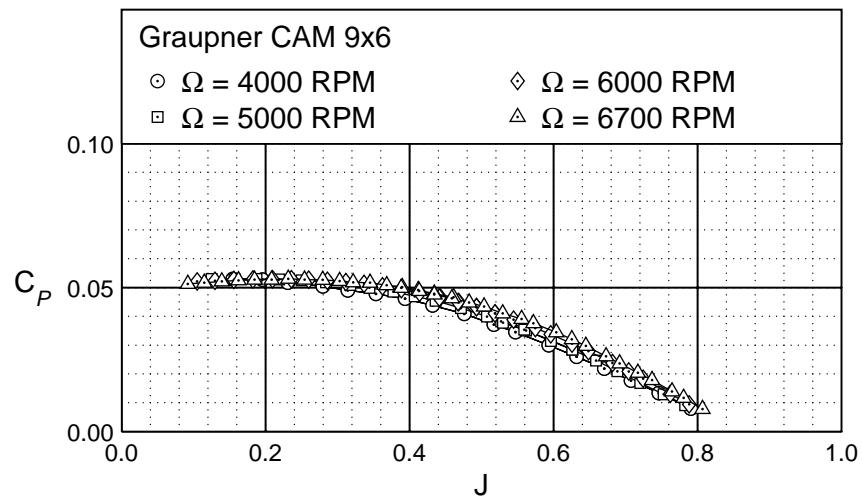


Figure 5.190: Graupner CAM Prop 9×6 power characteristics.

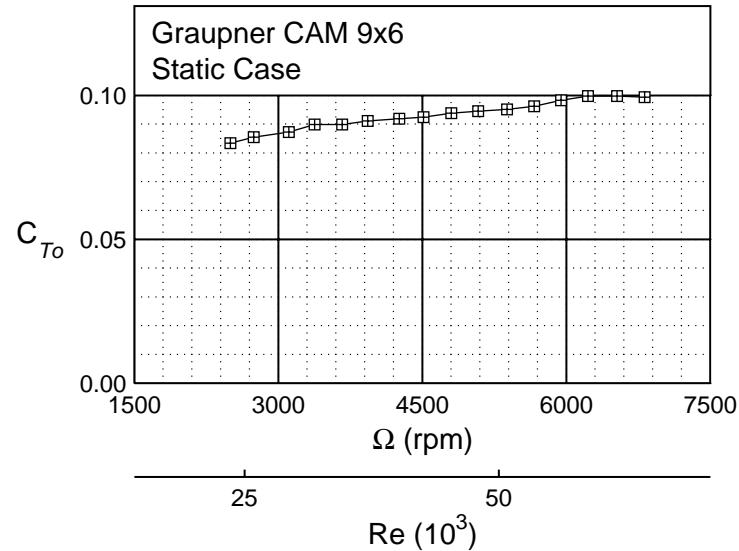


Figure 5.191: Graupner CAM Prop 9×6 static thrust.

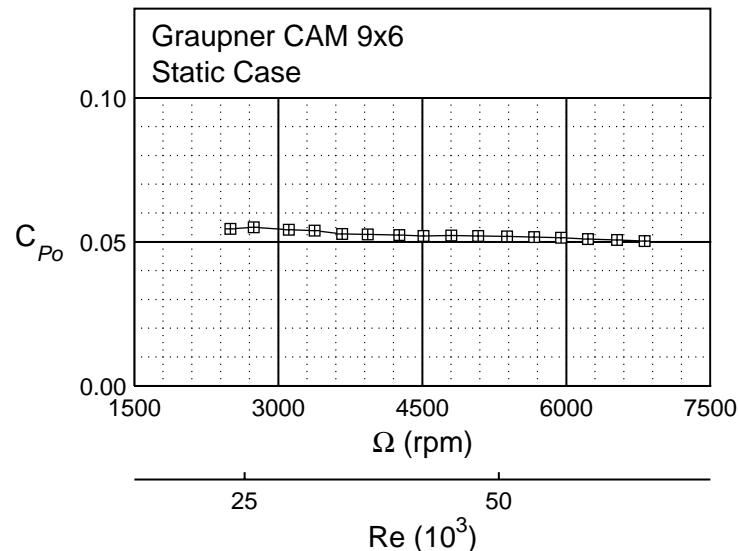
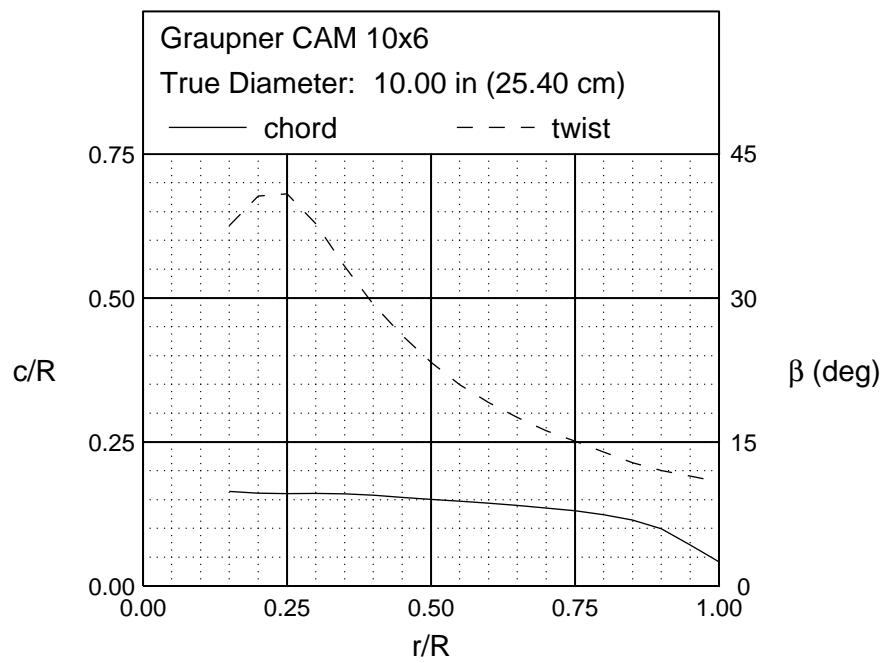


Figure 5.192: Graupner CAM Prop 9×6 static power.



Front View



Side View

Figure 5.193: Graupner CAM Prop 10×6 geometric characteristics.

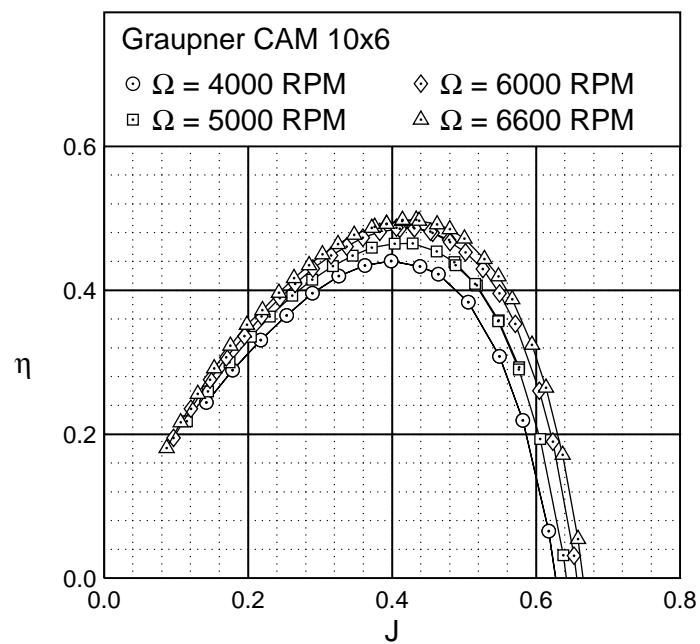


Figure 5.194: Graupner CAM Prop 10×6 efficiency curves.

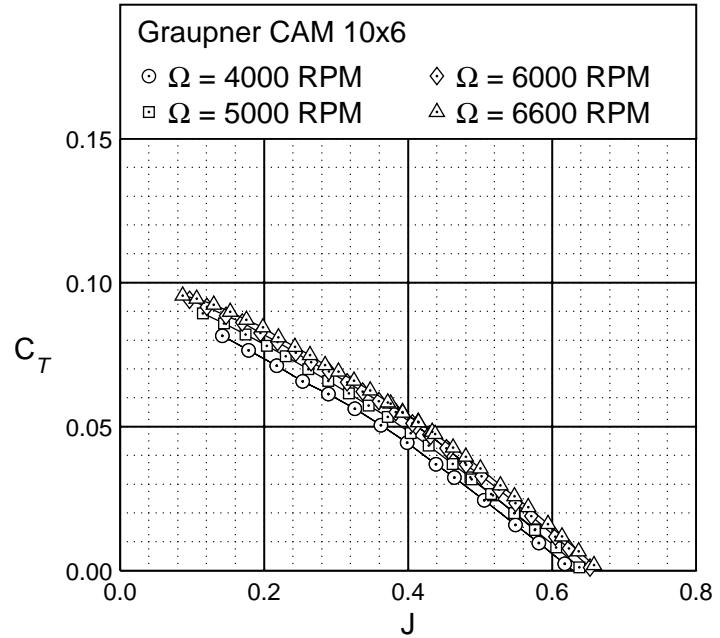


Figure 5.195: Graupner CAM Prop 10×6 thrust characteristics.

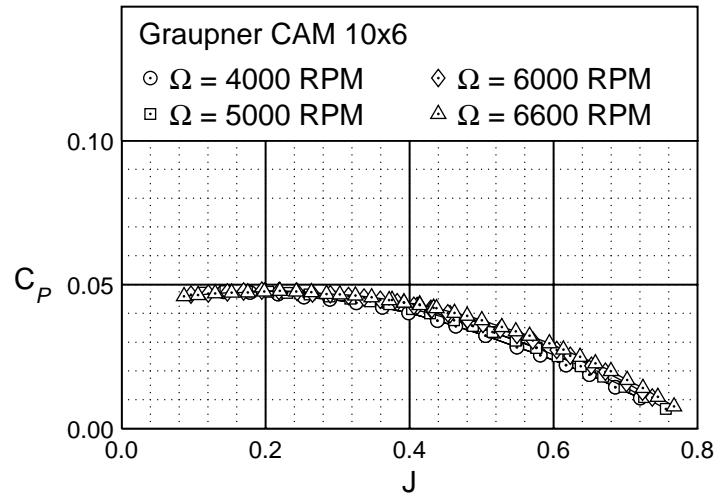


Figure 5.196: Graupner CAM Prop 10×6 power characteristics.

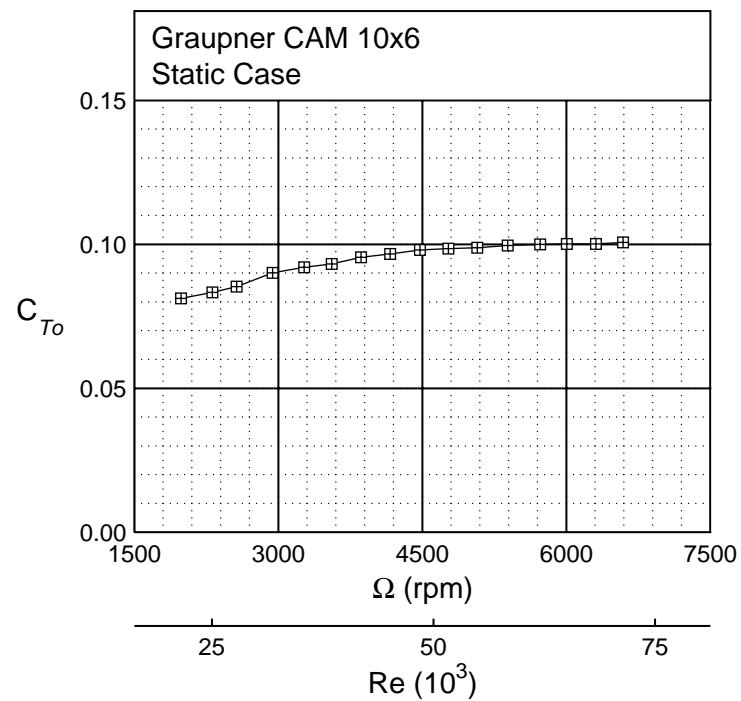


Figure 5.197: Graupner CAM Prop 10×6 static thrust.

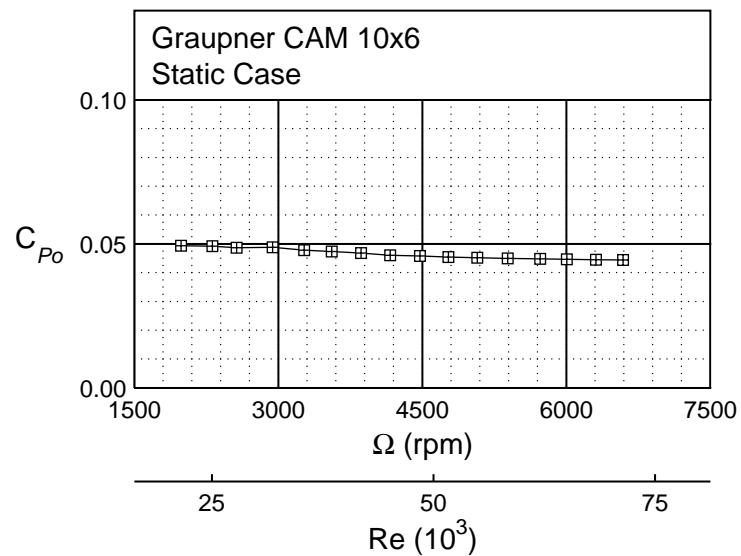
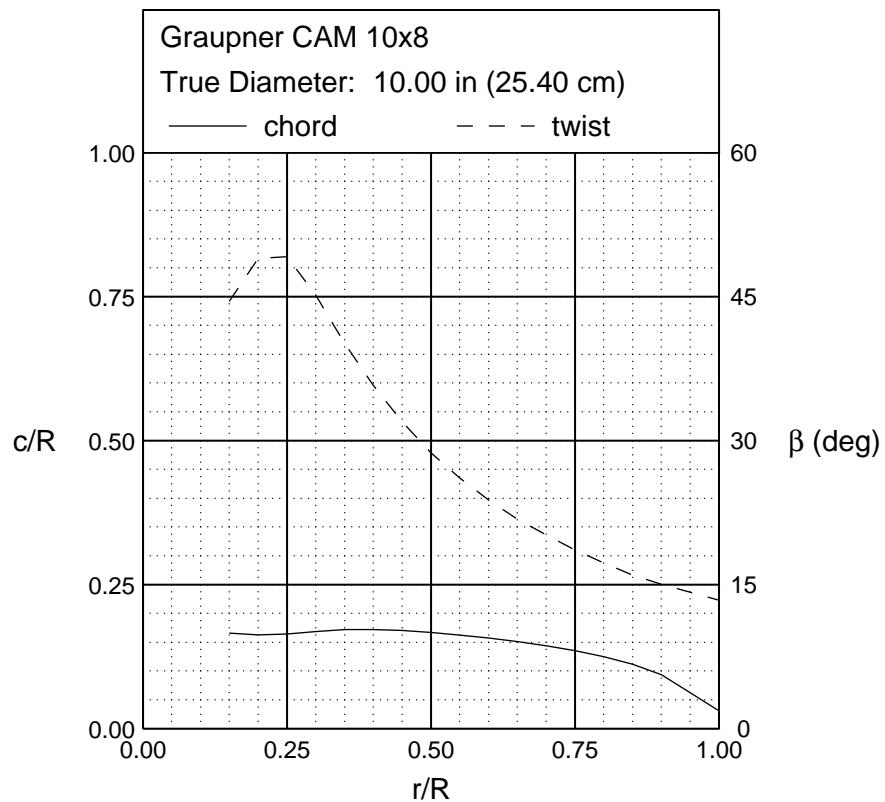


Figure 5.198: Graupner CAM Prop 10×6 static power.



Front View



Side View

Figure 5.199: Graupner CAM Prop 10×8 geometric characteristics.

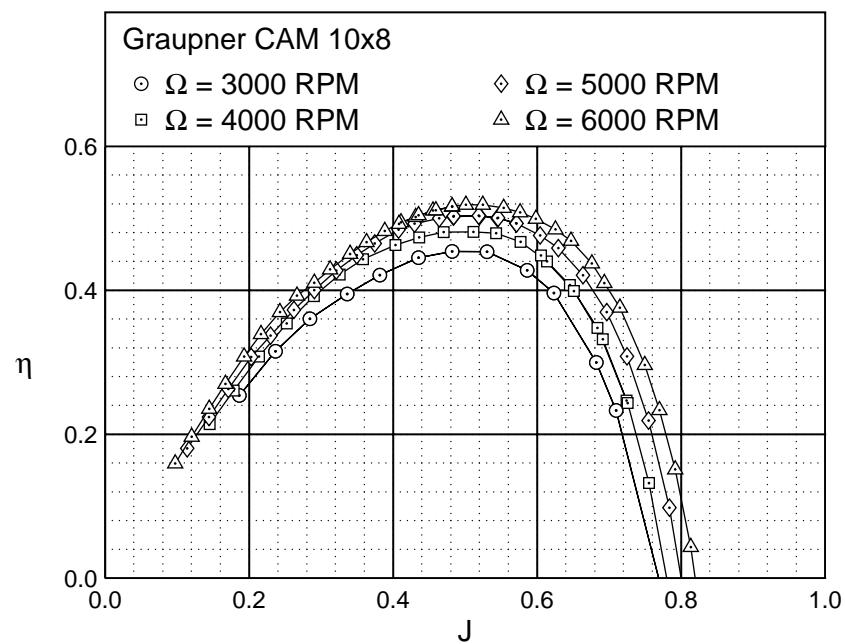


Figure 5.200: Graupner CAM Prop 10×8 efficiency curves.

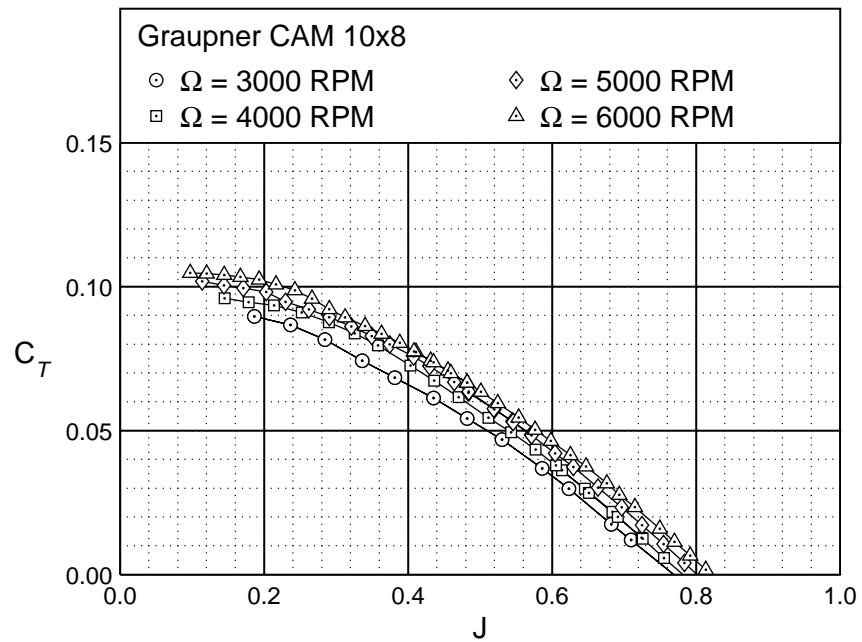


Figure 5.201: Graupner CAM Prop 10×8 thrust characteristics.

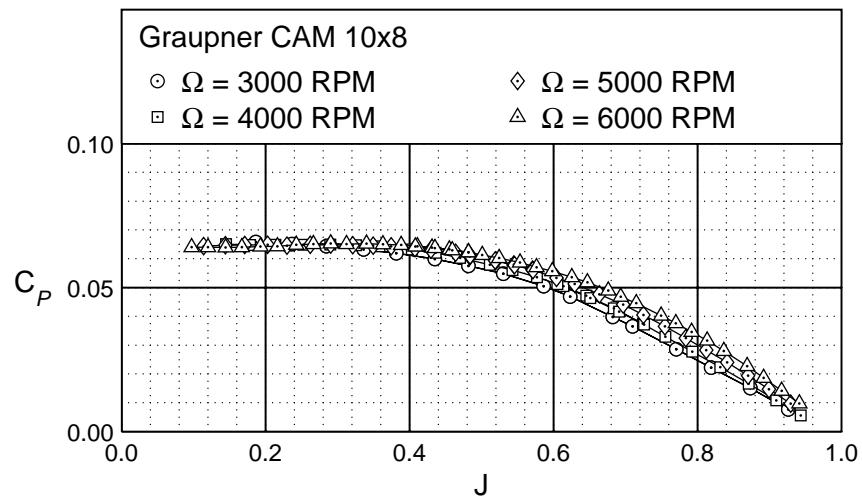


Figure 5.202: Graupner CAM Prop 10×8 power characteristics.

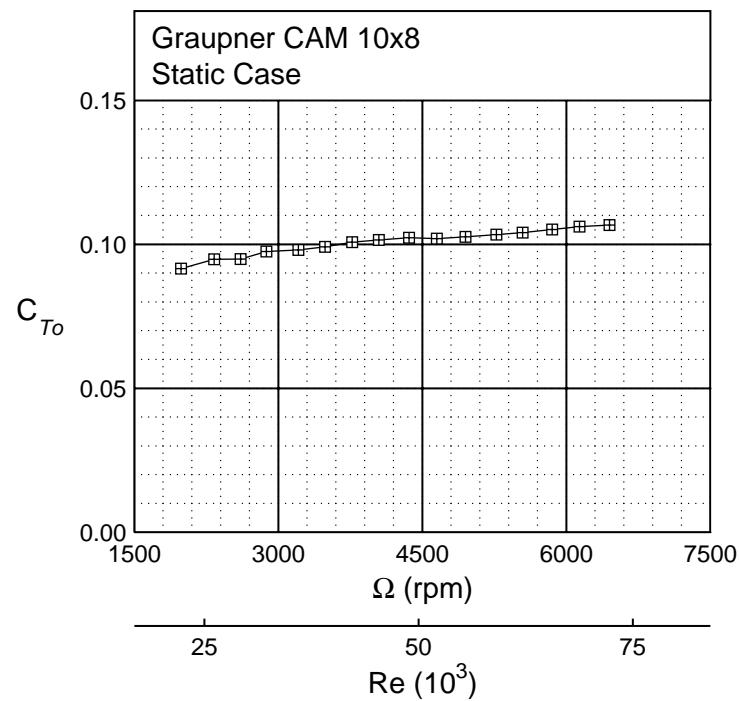


Figure 5.203: Graupner CAM Prop 10×8 static thrust.

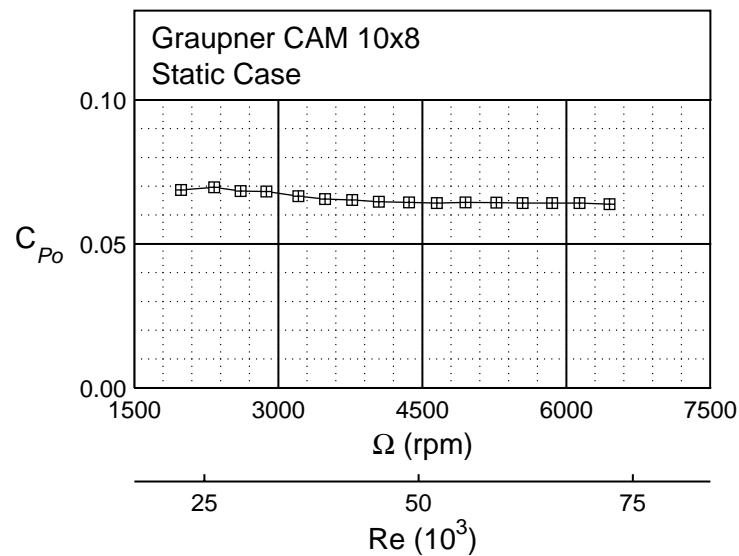
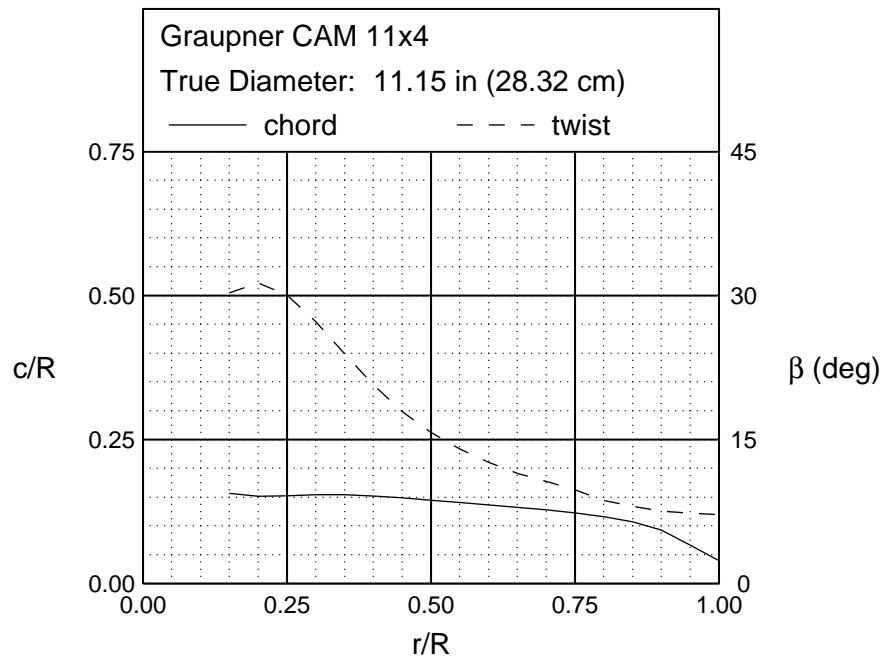


Figure 5.204: Graupner CAM Prop 10×8 static power.



Front View



Side View

Figure 5.205: Graupner CAM Prop 11×4 geometric characteristics.

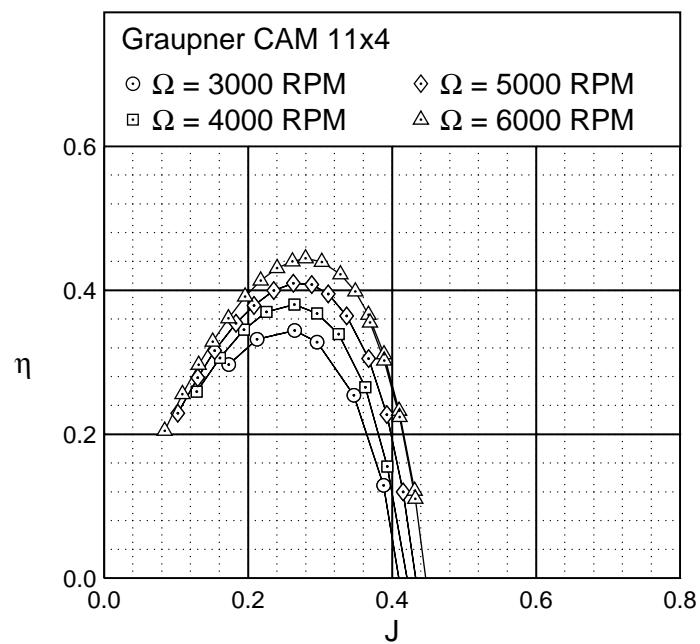


Figure 5.206: Graupner CAM Prop 11×4 efficiency curves.

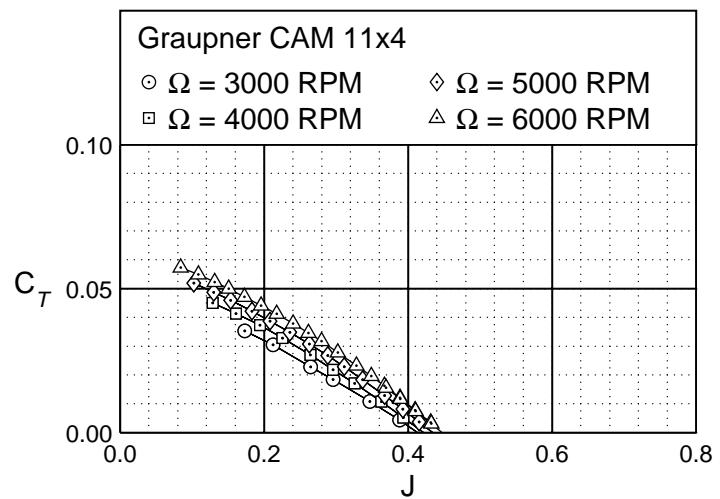


Figure 5.207: Graupner CAM Prop 11×4 thrust characteristics.

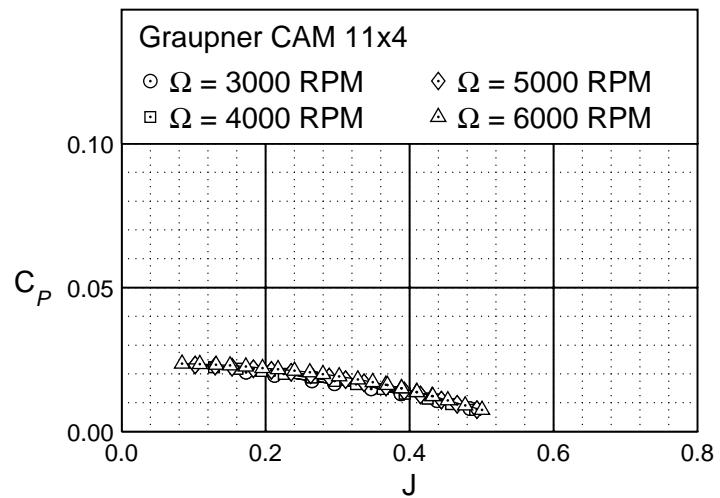


Figure 5.208: Graupner CAM Prop 11×4 power characteristics.

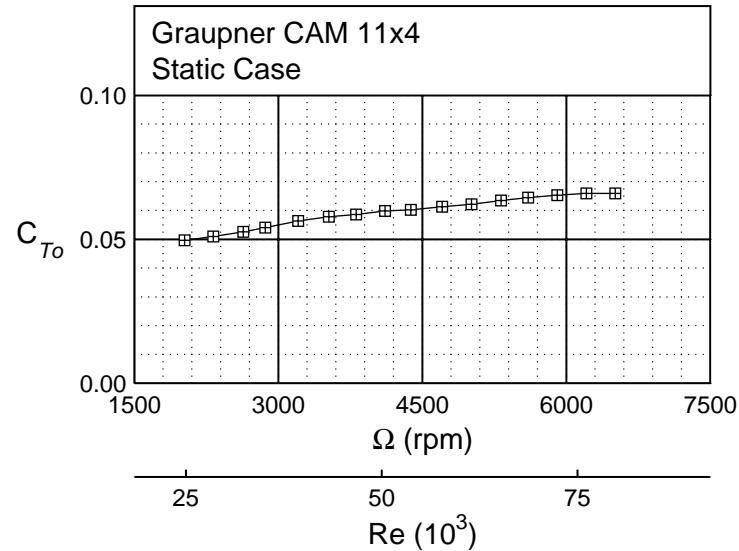


Figure 5.209: Graupner CAM Prop 11×4 static thrust.

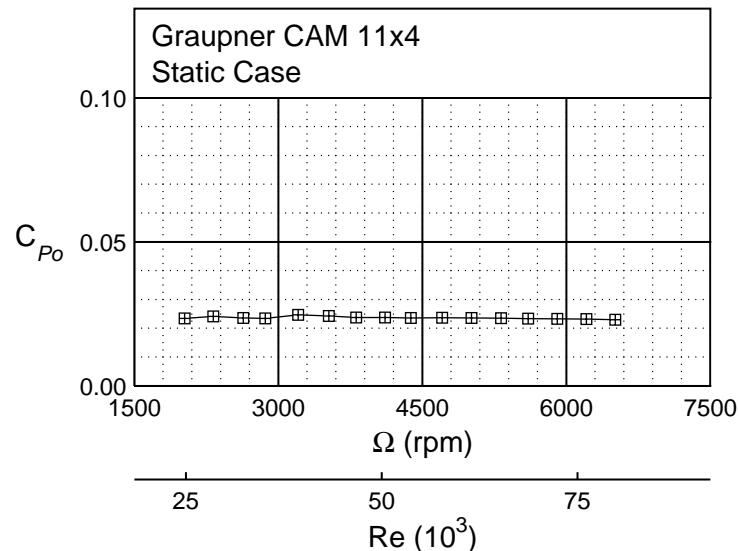
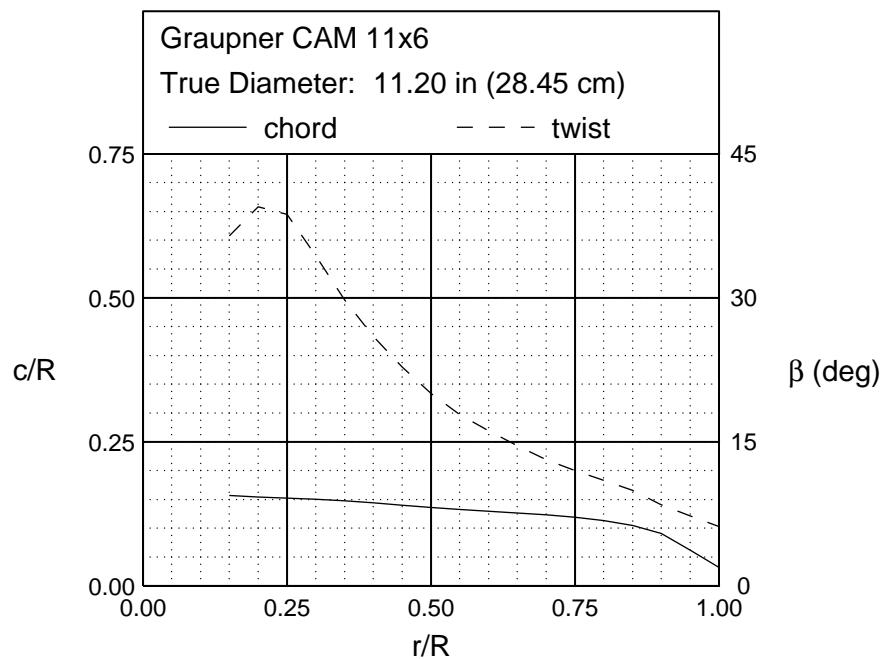


Figure 5.210: Graupner CAM Prop 11×4 static power.



Front View



Side View

Figure 5.211: Graupner CAM Prop 11×6 geometric characteristics.

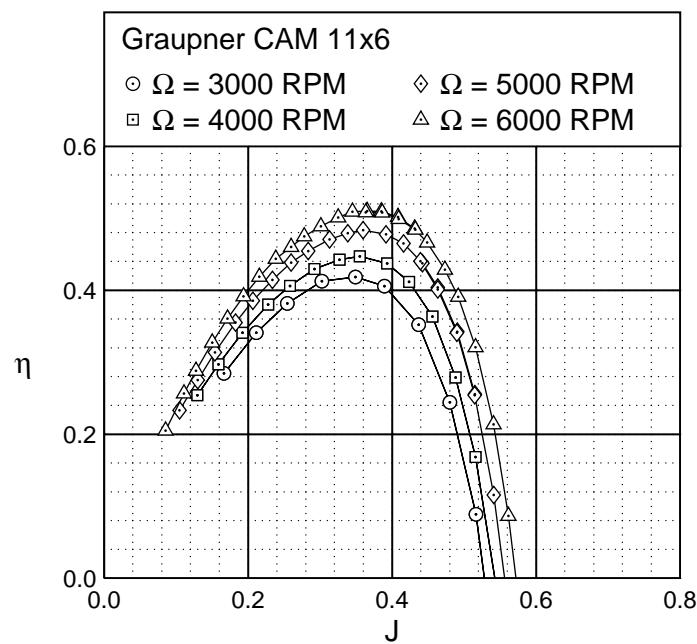


Figure 5.212: Graupner CAM Prop 11×6 efficiency curves.

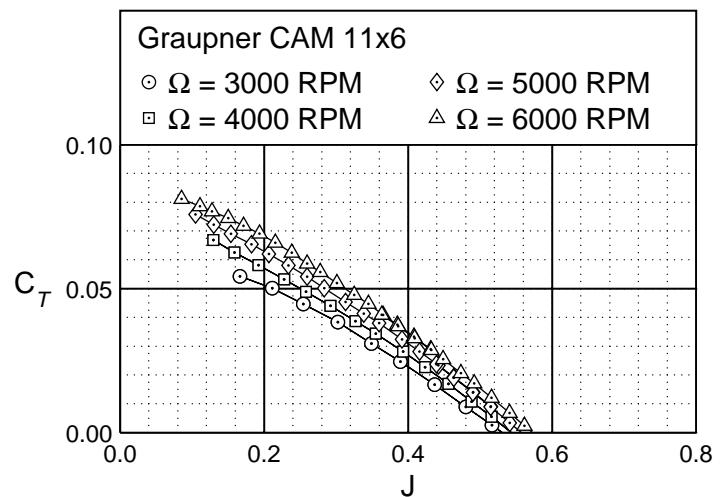


Figure 5.213: Graupner CAM Prop 11×6 thrust characteristics.

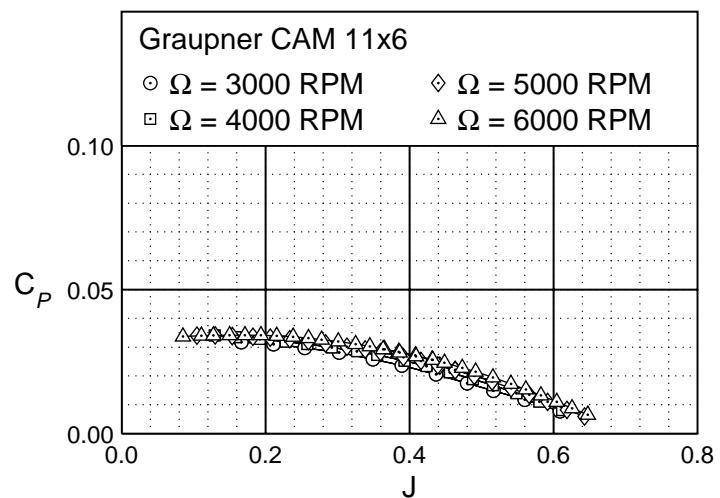


Figure 5.214: Graupner CAM Prop 11×6 power characteristics.

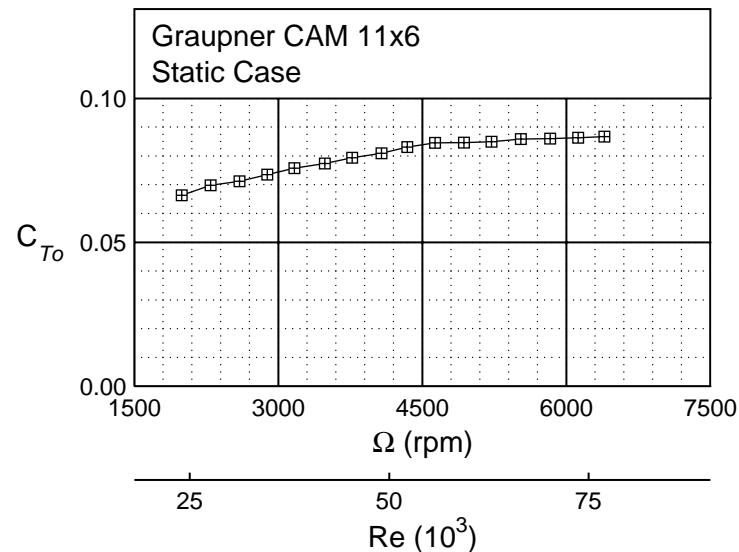


Figure 5.215: Graupner CAM Prop 11×6 static thrust.

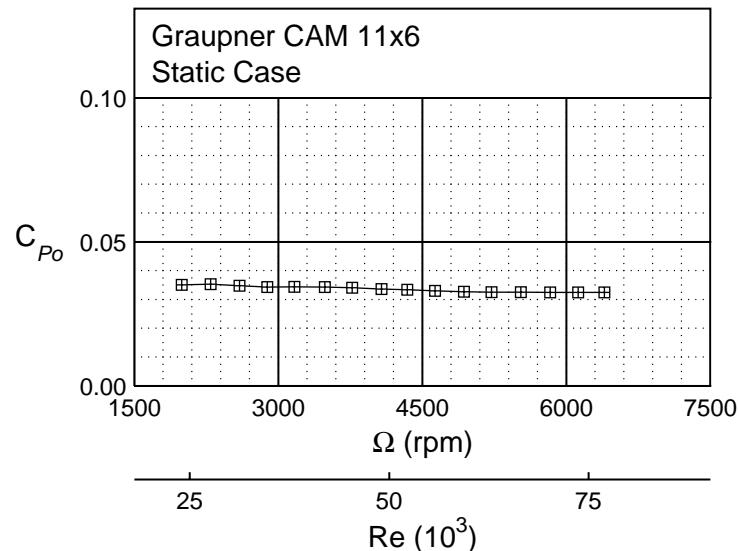
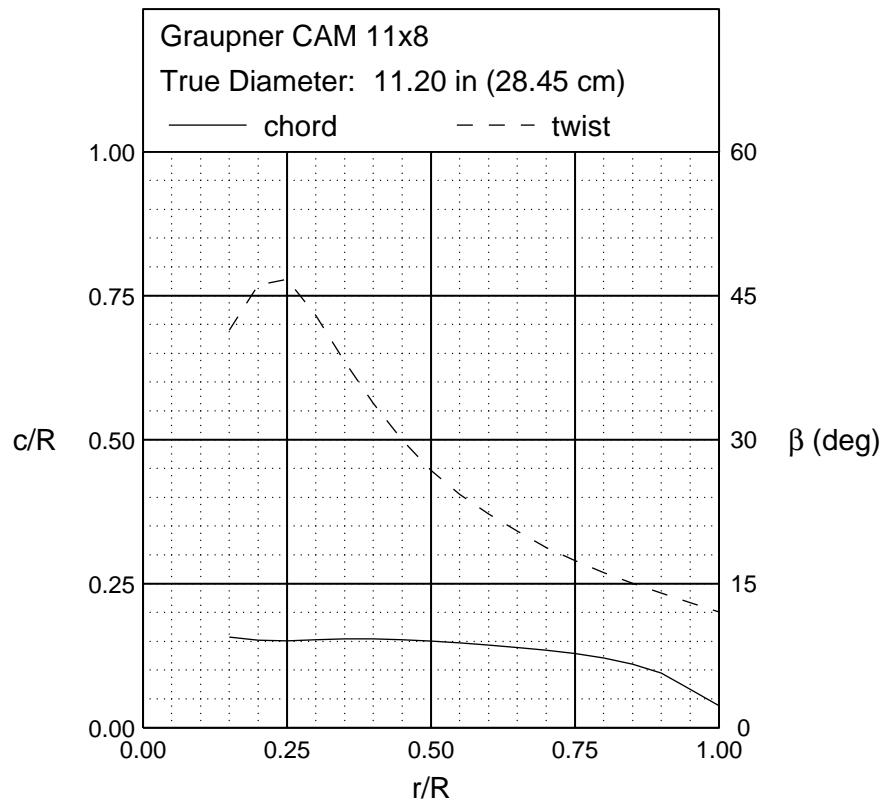


Figure 5.216: Graupner CAM Prop 11×6 static power.



Front View



Side View

Figure 5.217: Graupner CAM Prop 11×8 geometric characteristics.

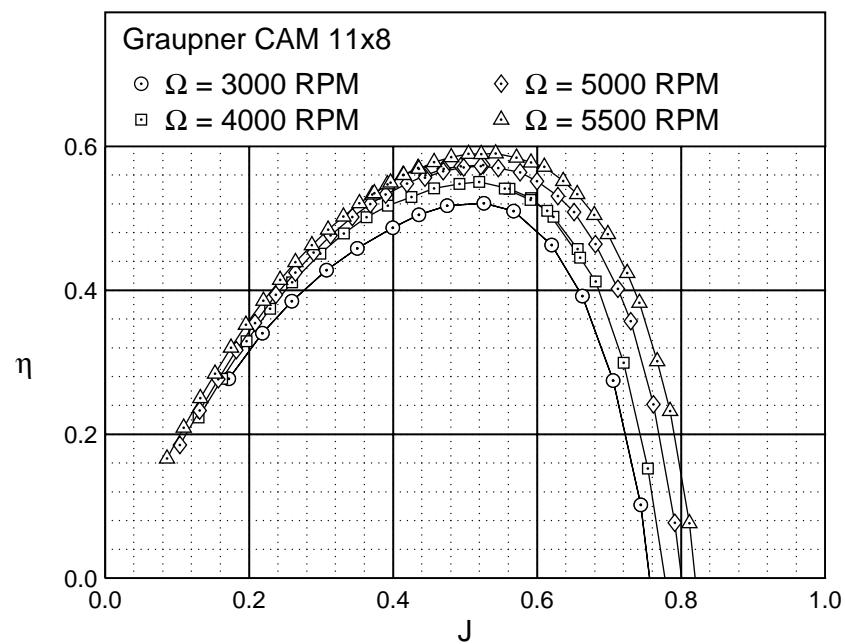


Figure 5.218: Graupner CAM Prop 11×8 efficiency curves.

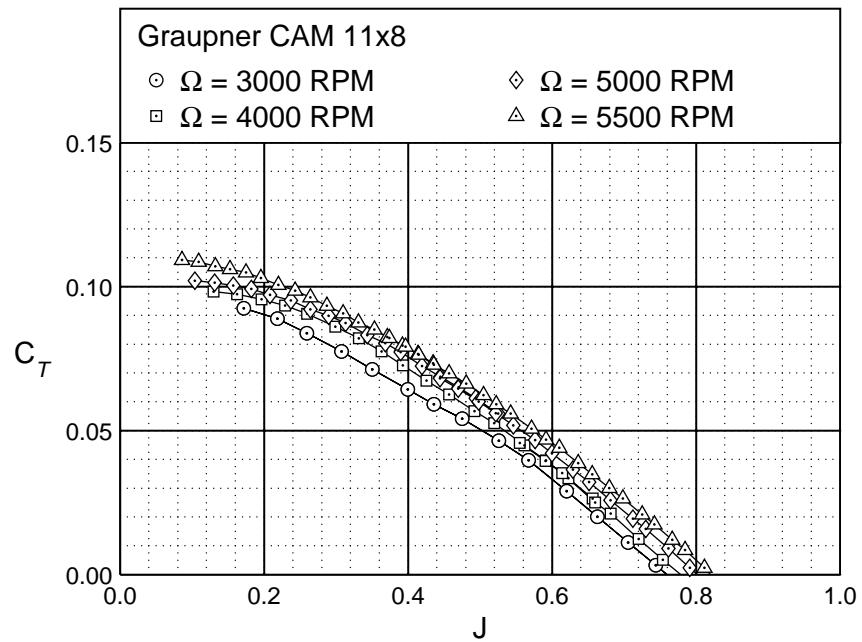


Figure 5.219: Graupner CAM Prop 11×8 thrust characteristics.

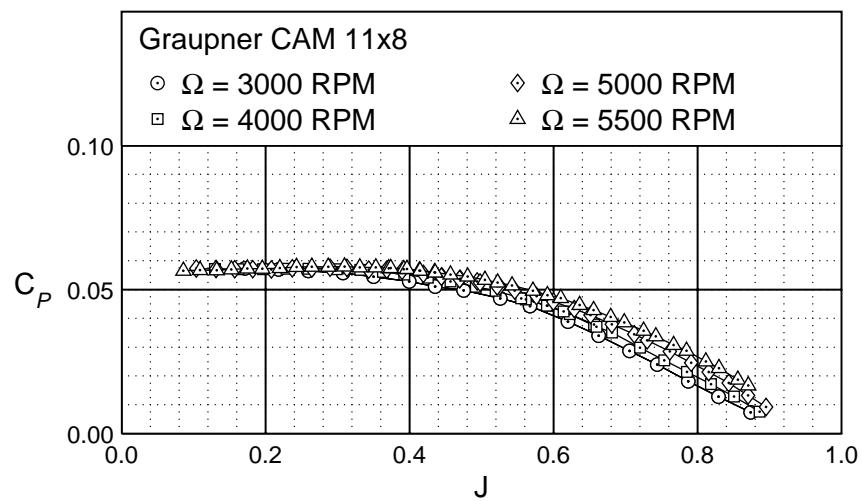


Figure 5.220: Graupner CAM Prop 11×8 power characteristics.

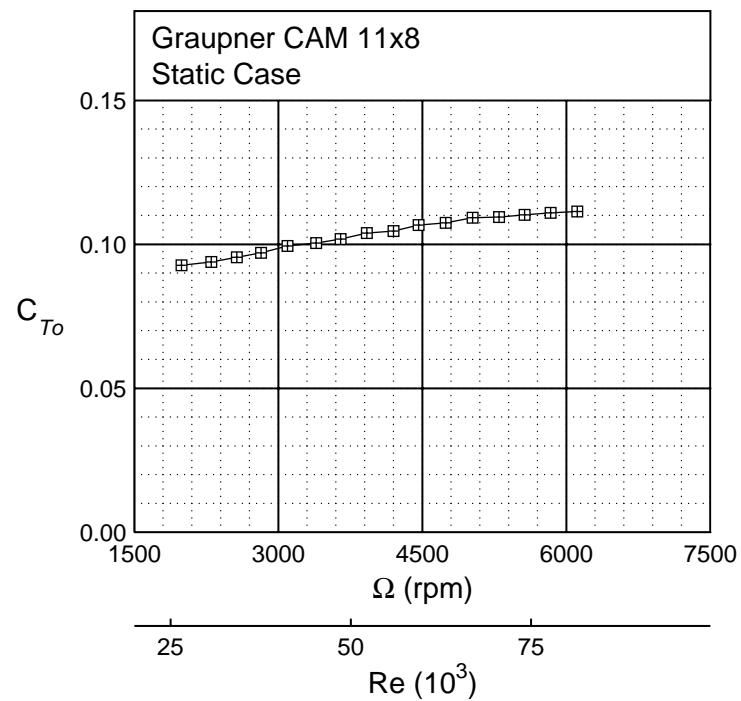


Figure 5.221: Graupner CAM Prop 11×8 static thrust.

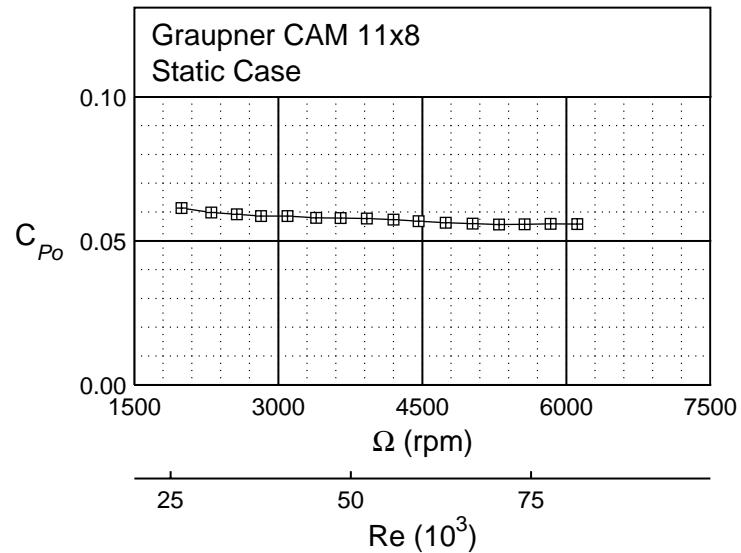
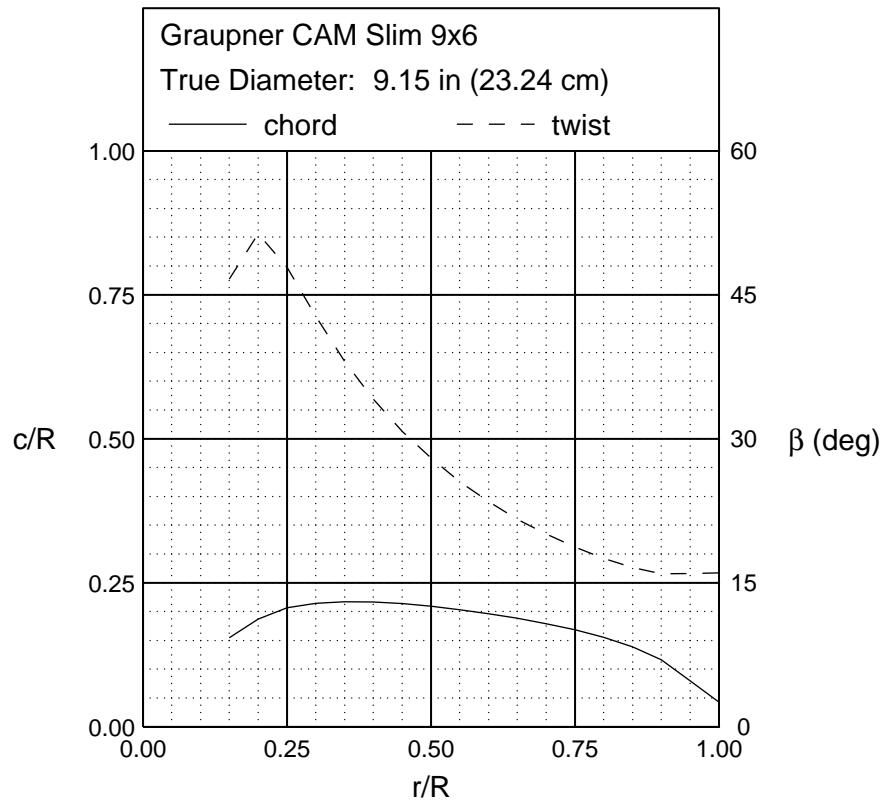


Figure 5.222: Graupner CAM Prop 11×8 static power.



Front View



Side View

Figure 5.223: Graupner CAM Slim 9×6 geometric characteristics.

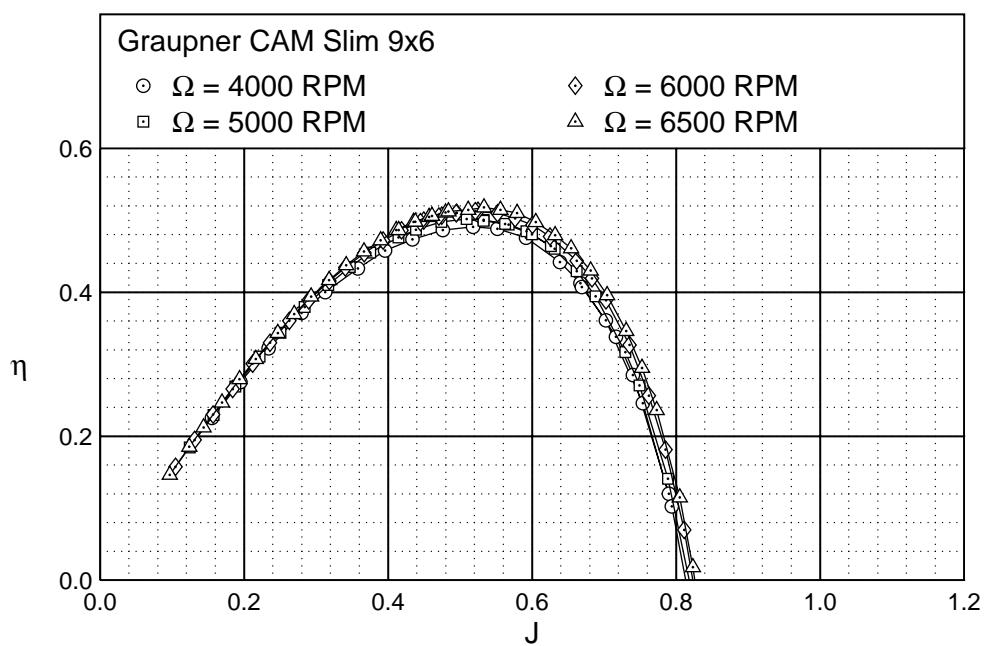


Figure 5.224: Graupner CAM Slim 9×6 efficiency curves.

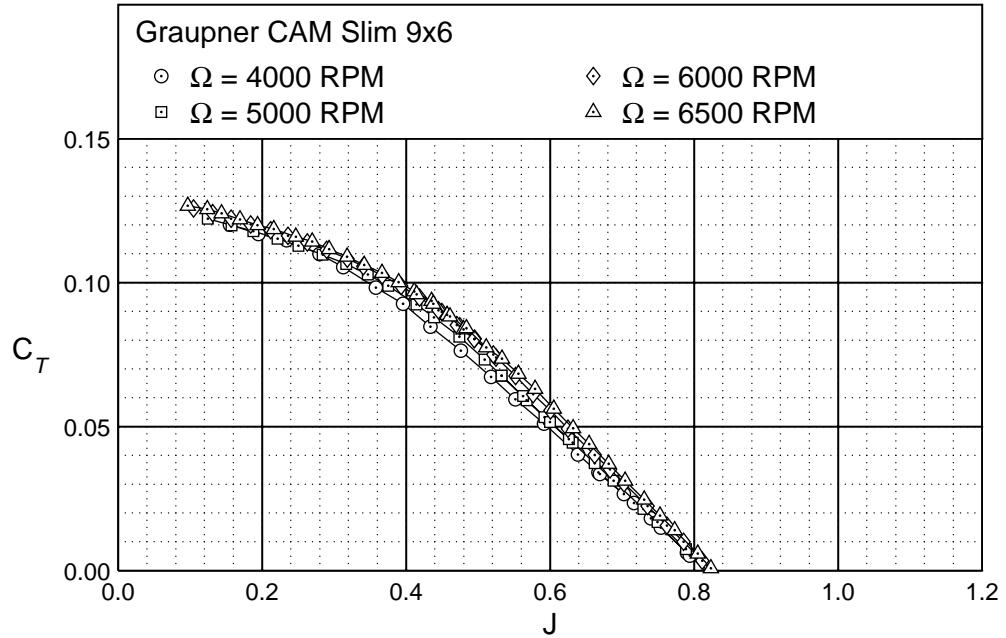


Figure 5.225: Graupner CAM Slim 9×6 thrust characteristics.

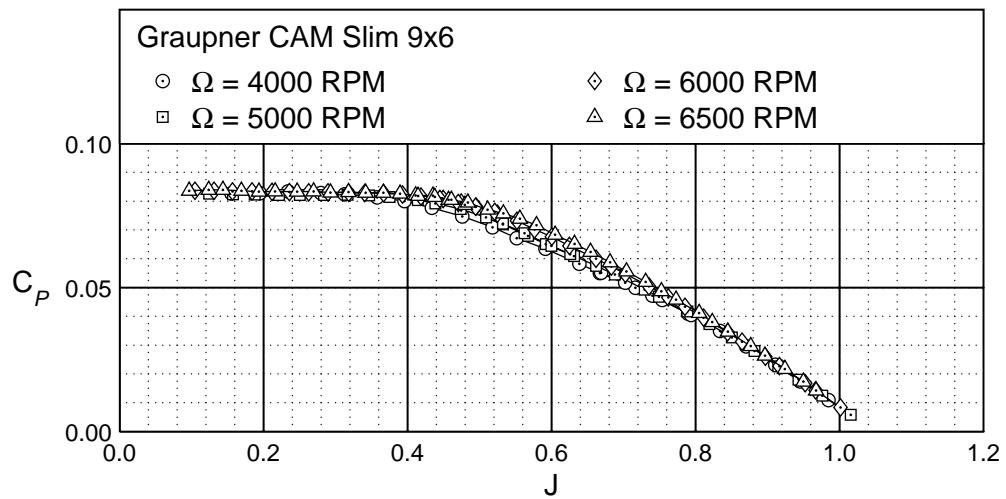


Figure 5.226: Graupner CAM Slim 9×6 power characteristics.

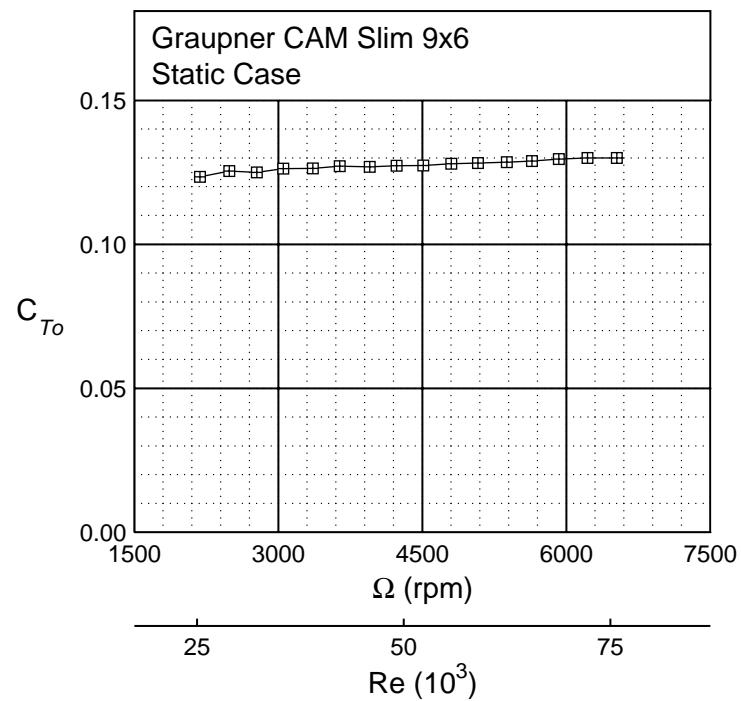


Figure 5.227: Graupner CAM Slim 9×6 static thrust.

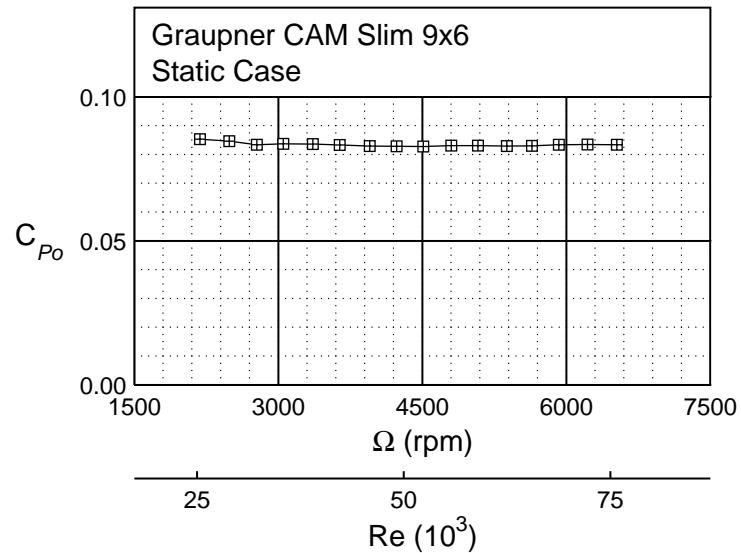
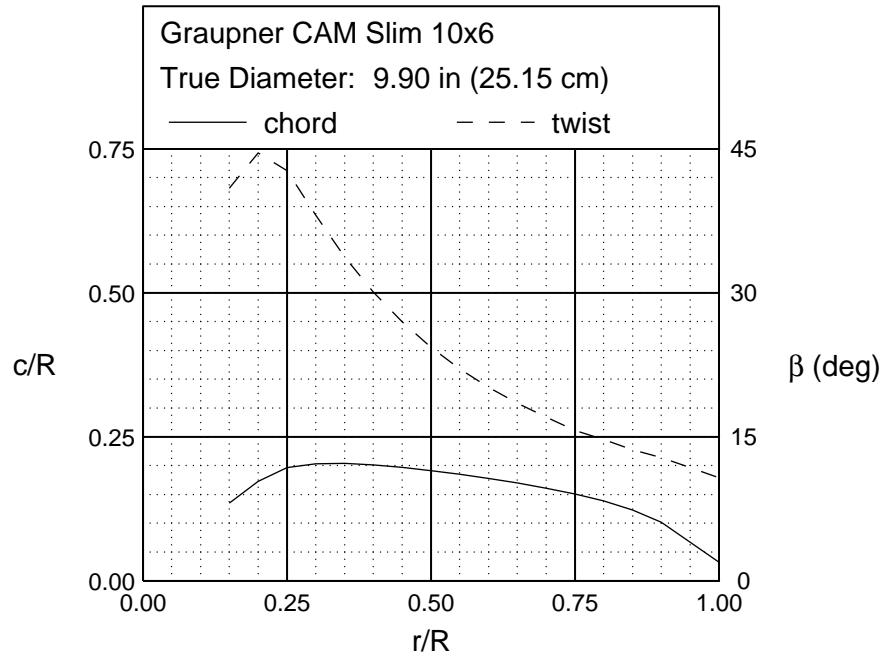


Figure 5.228: Graupner CAM Slim 9×6 static power.



Front View



Side View

Figure 5.229: Graupner CAM Slim 10×6 geometric characteristics.

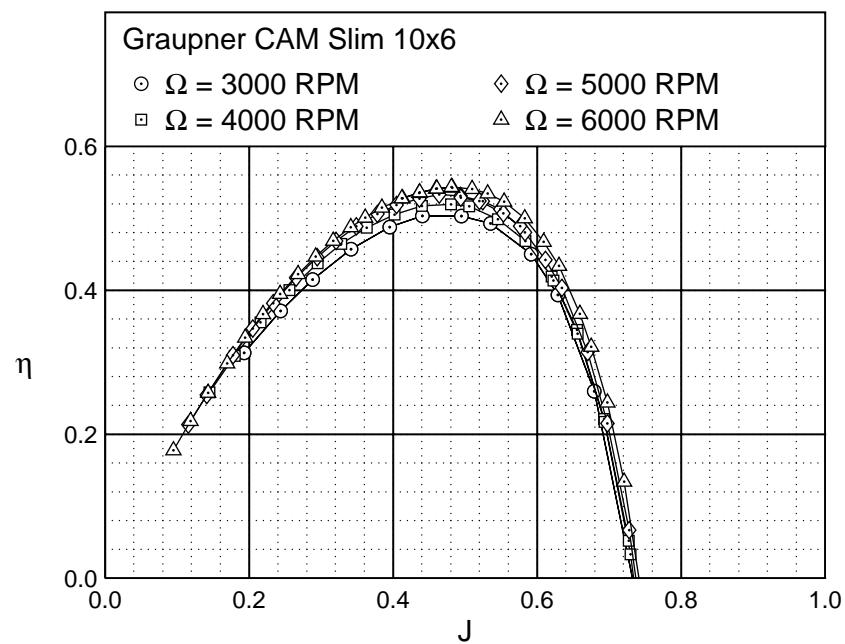


Figure 5.230: Graupner CAM Slim 10×6 efficiency curves.

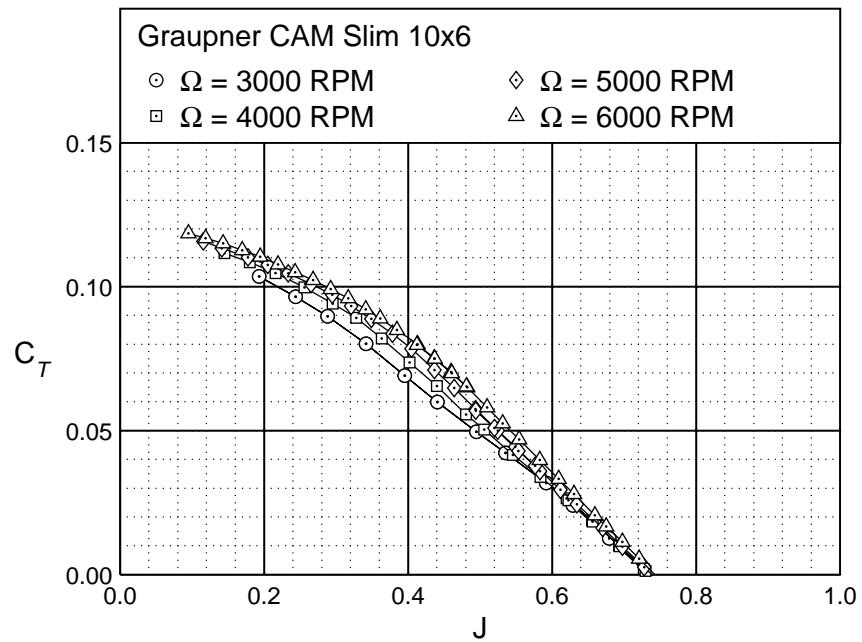


Figure 5.231: Graupner CAM Slim 10×6 thrust characteristics.

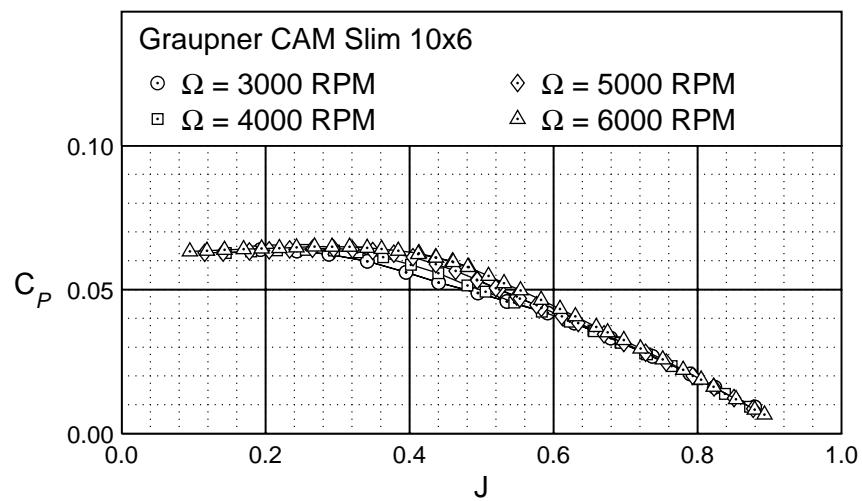


Figure 5.232: Graupner CAM Slim 10×6 power characteristics.

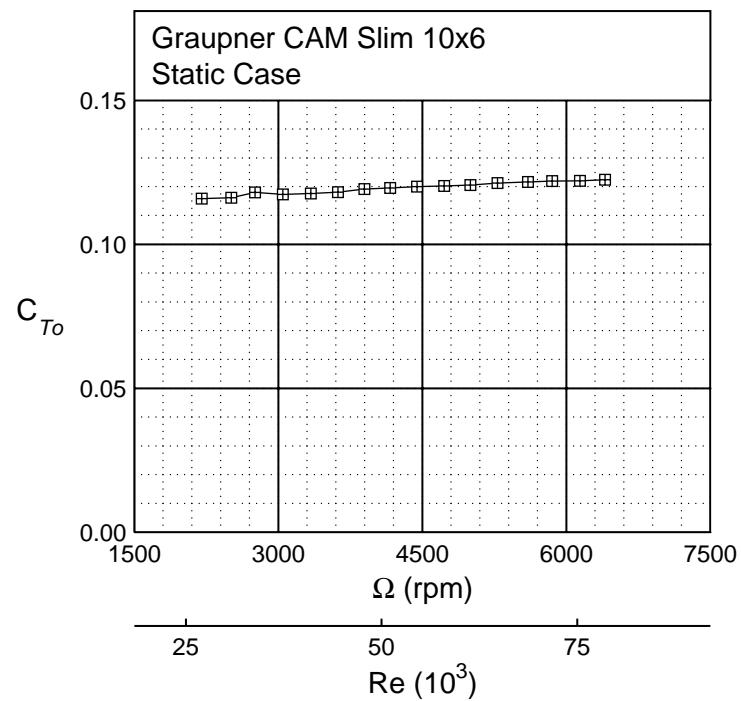


Figure 5.233: Graupner CAM Slim 10×6 static thrust.

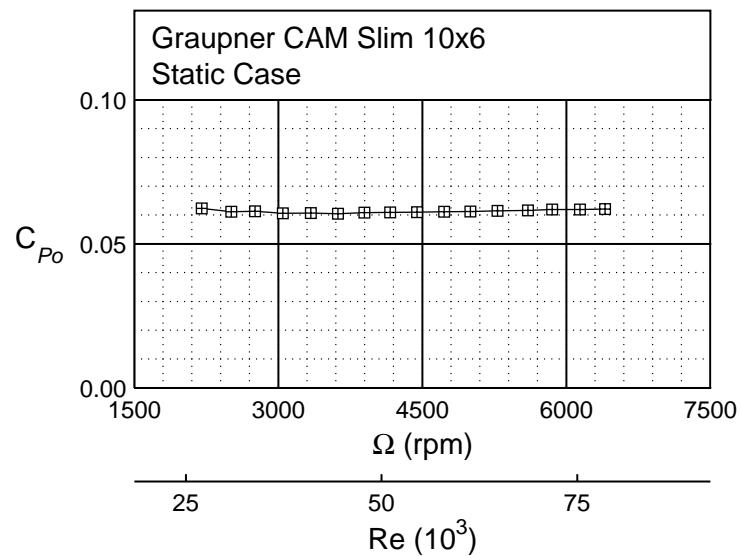
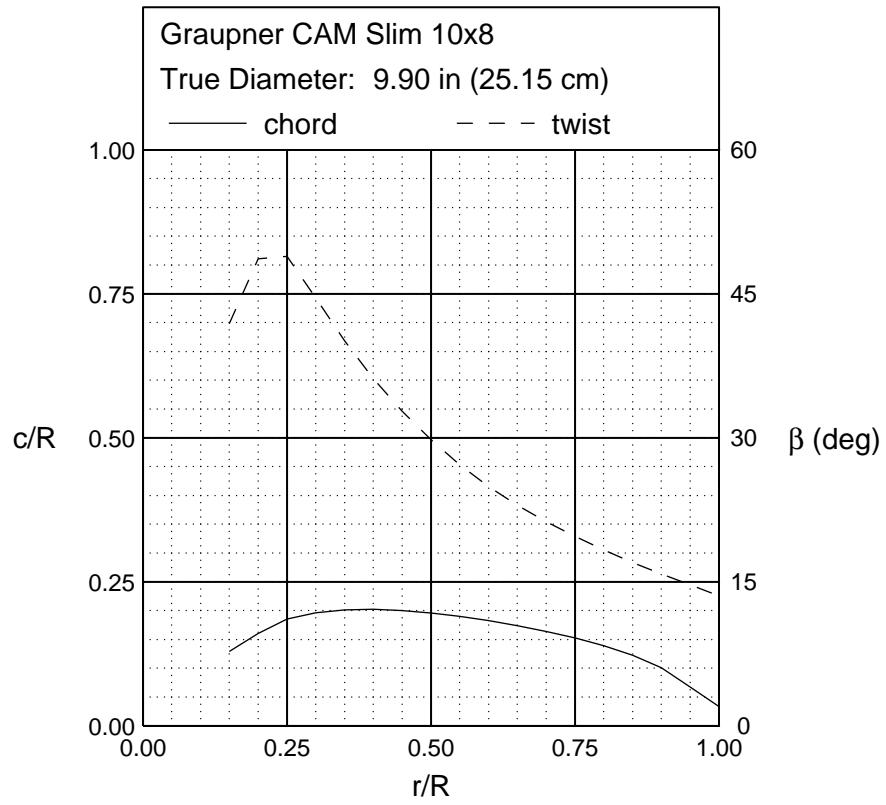


Figure 5.234: Graupner CAM Slim 10×6 static power.



Front View



Side View

Figure 5.235: Graupner CAM Slim 10×8 geometric characteristics.

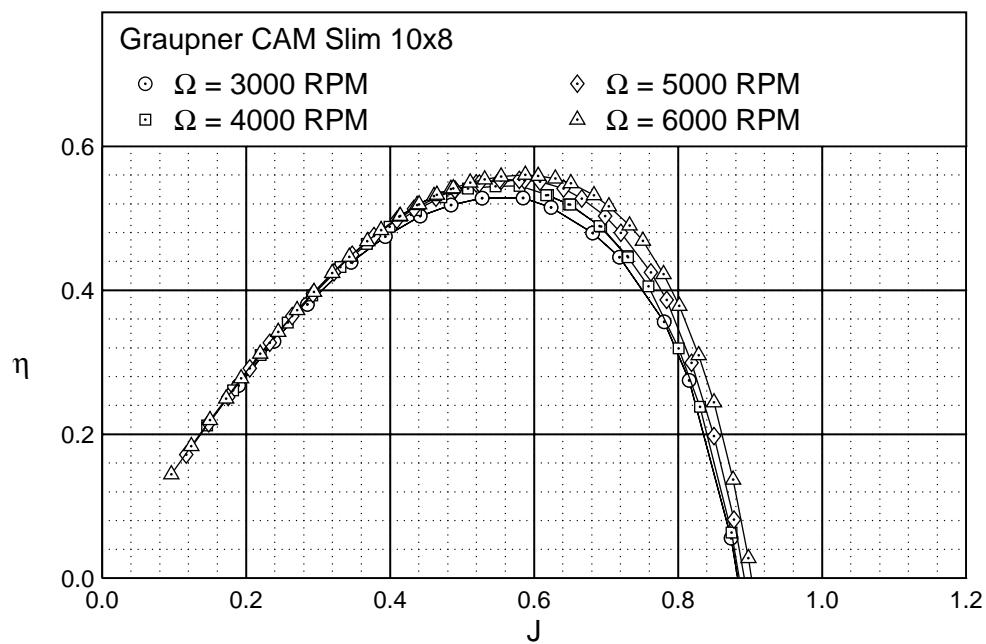


Figure 5.236: Graupner CAM Slim 10×8 efficiency curves.

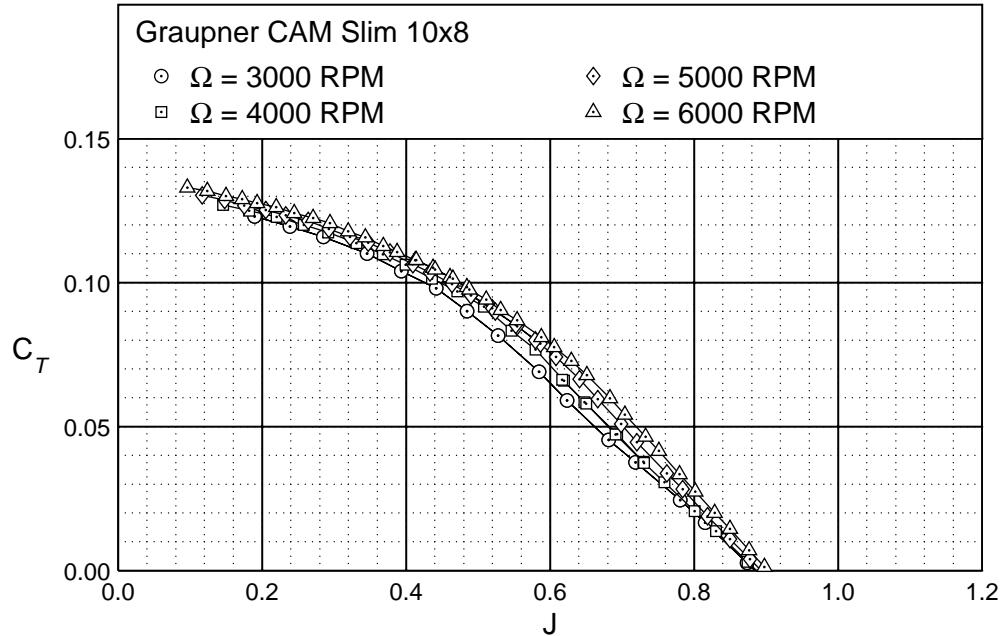


Figure 5.237: Graupner CAM Slim 10×8 thrust characteristics.

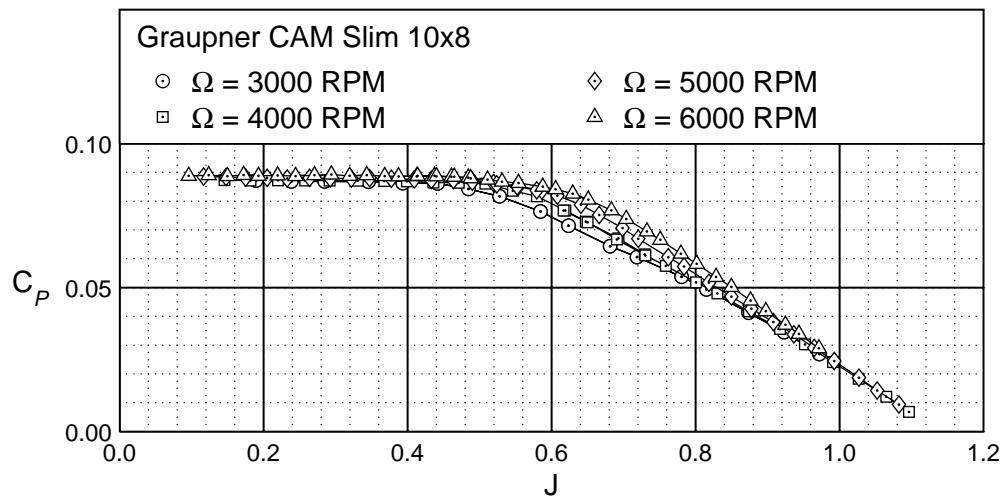


Figure 5.238: Graupner CAM Slim 10×8 power characteristics.

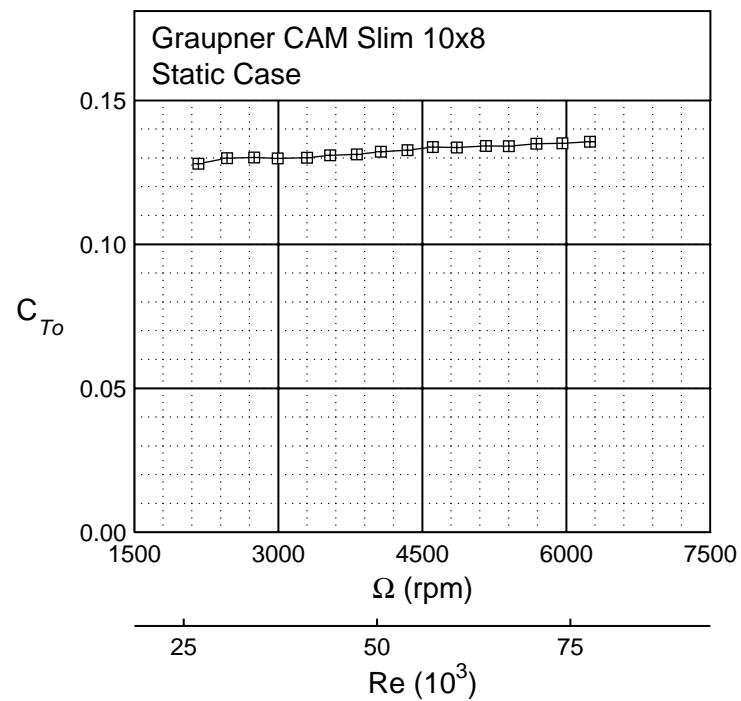


Figure 5.239: Graupner CAM Slim 10×8 static thrust.

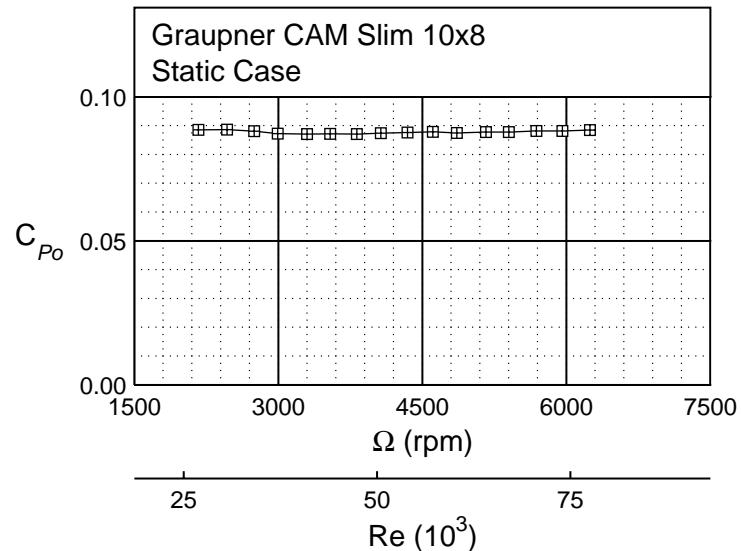
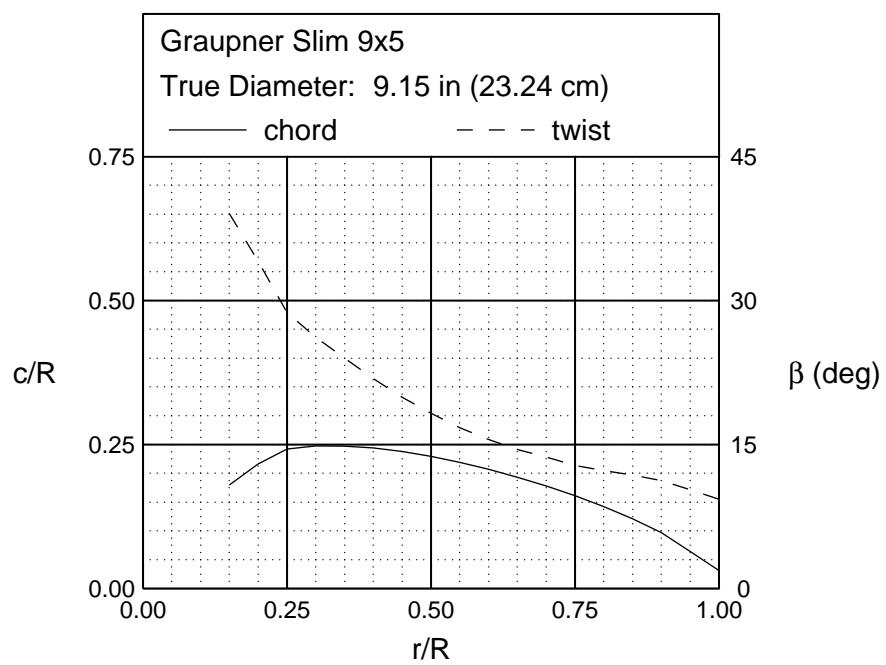


Figure 5.240: Graupner CAM Slim 10×8 static power.



Front View



Side View

Figure 5.241: Graupner Slim 9×5 geometric characteristics.

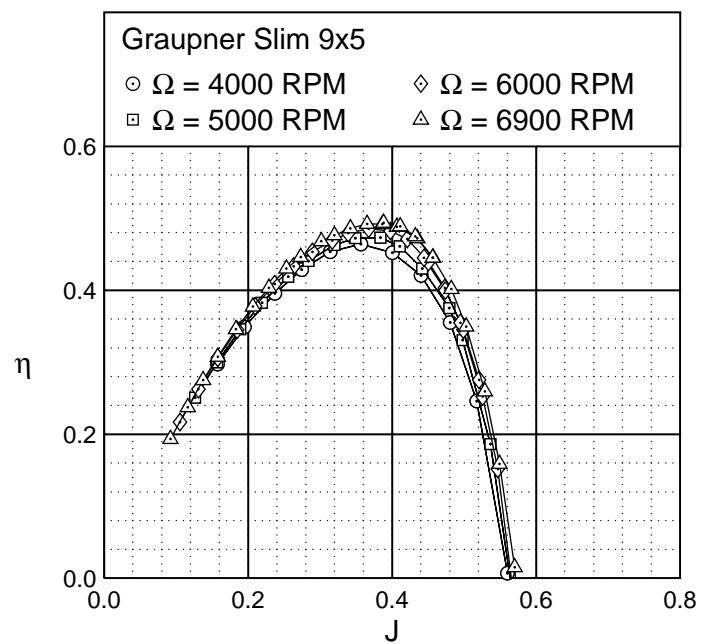


Figure 5.242: Graupner Slim 9×5 efficiency curves.

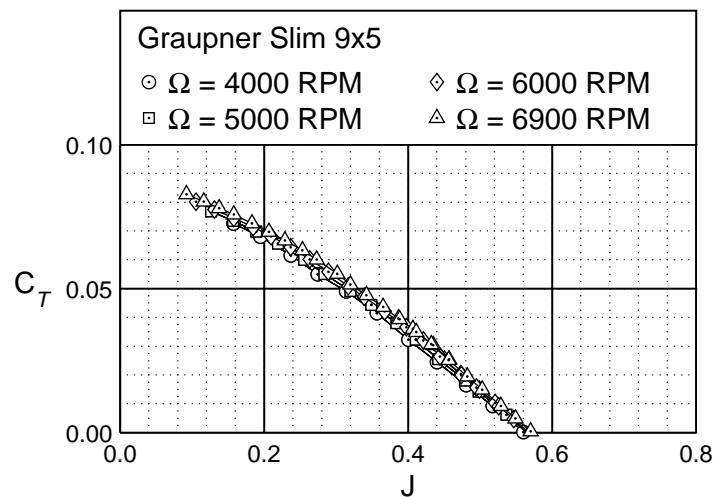


Figure 5.243: Graupner Slim 9×5 thrust characteristics.

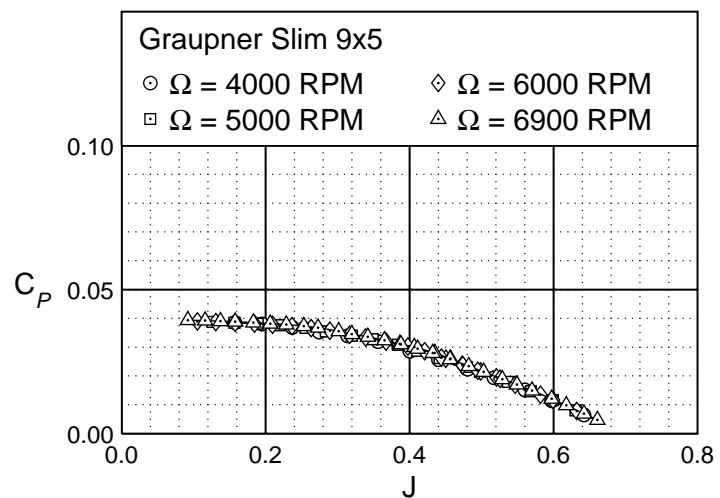


Figure 5.244: Graupner Slim 9×5 power characteristics.

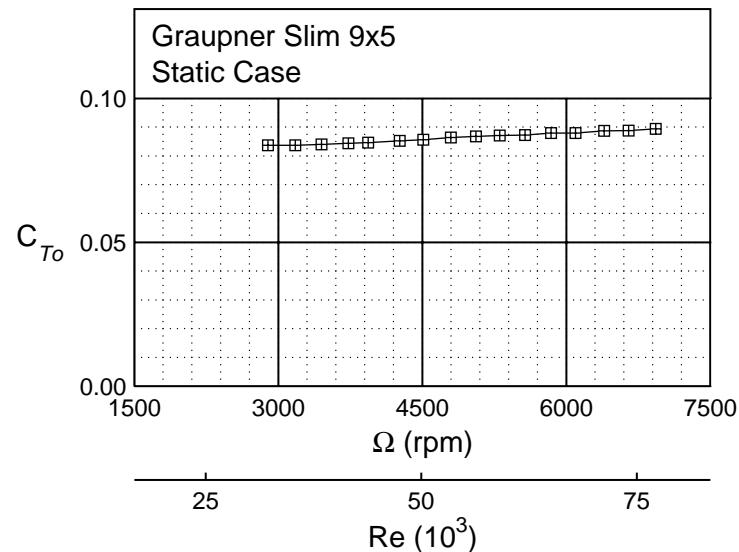


Figure 5.245: Graupner Slim 9×5 static thrust.

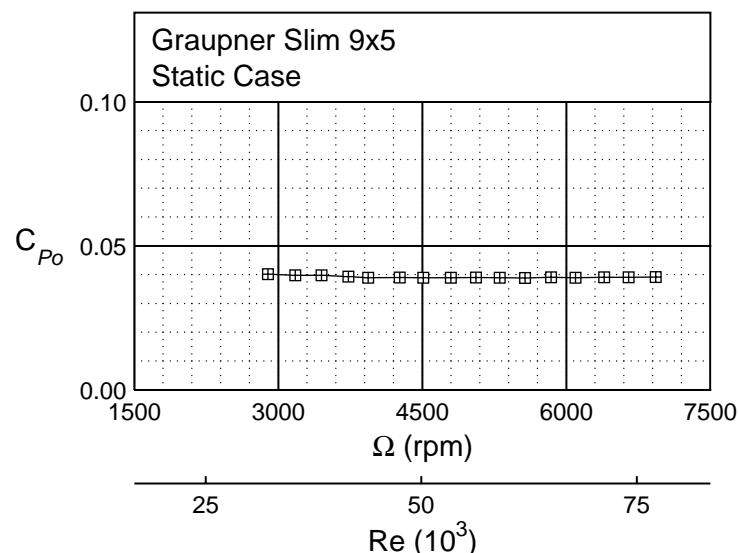
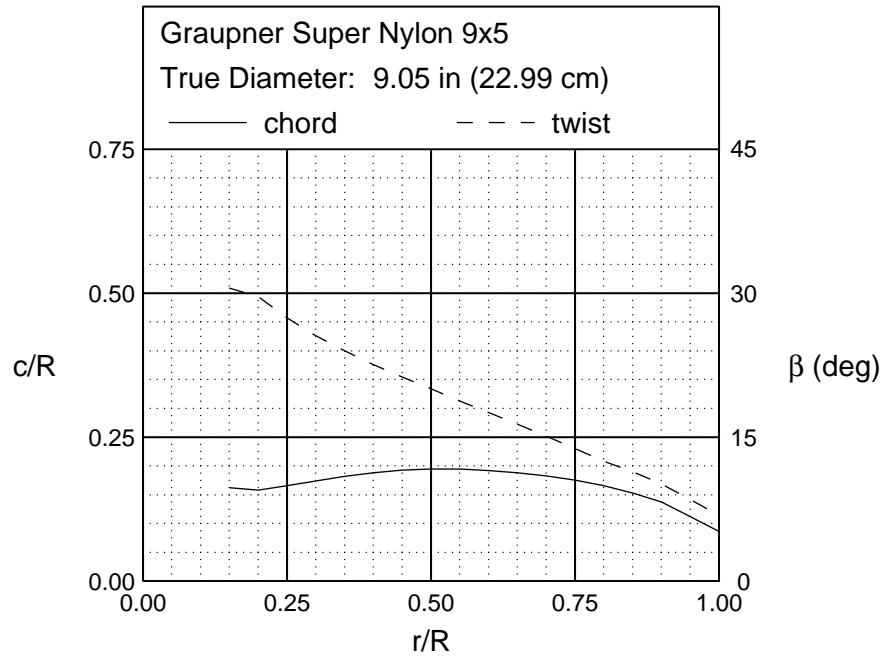


Figure 5.246: Graupner Slim 9×5 static power.



Front View



Side View

Figure 5.247: Graupner Super Nylon 9×5 geometric characteristics.

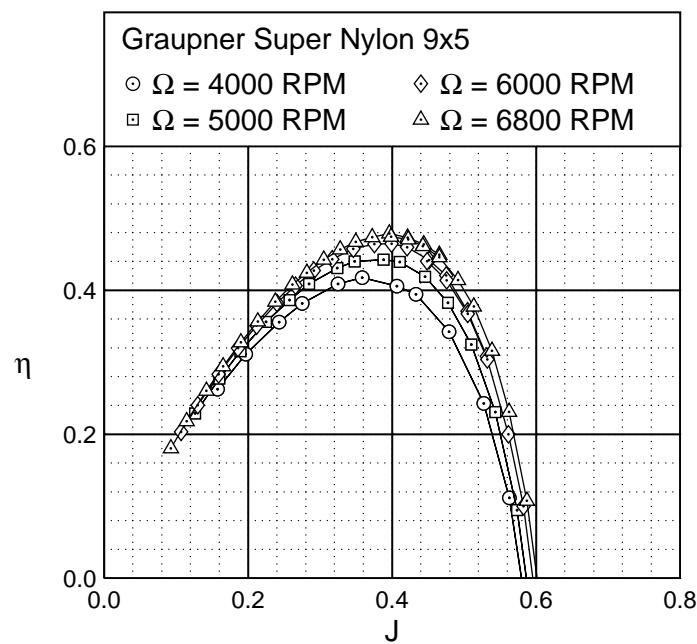


Figure 5.248: Graupner Super Nylon 9×5 efficiency curves.

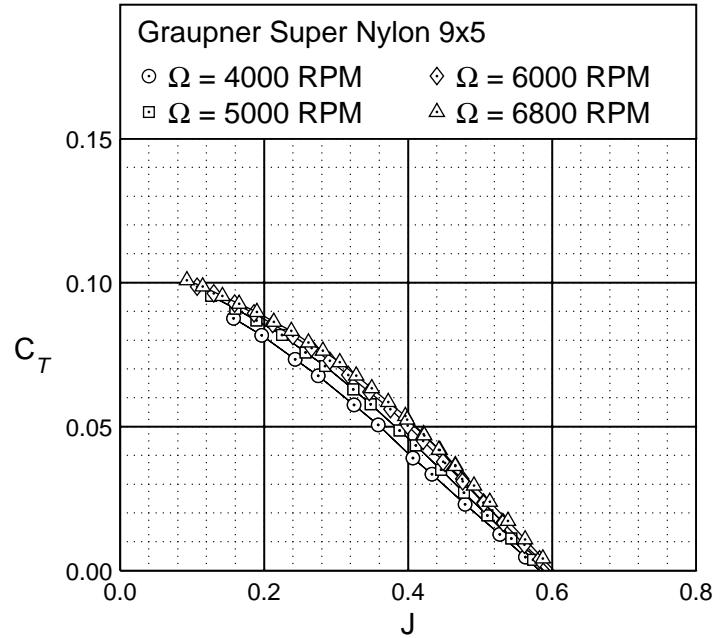


Figure 5.249: Graupner Super Nylon 9×5 thrust characteristics.

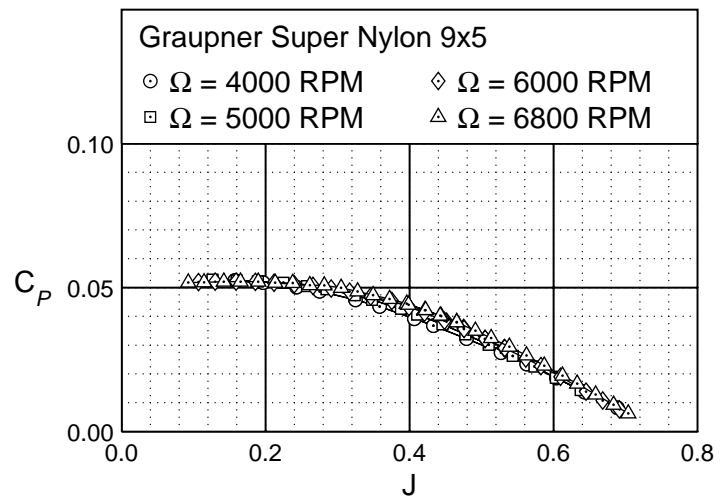


Figure 5.250: Graupner Super Nylon 9×5 power characteristics.

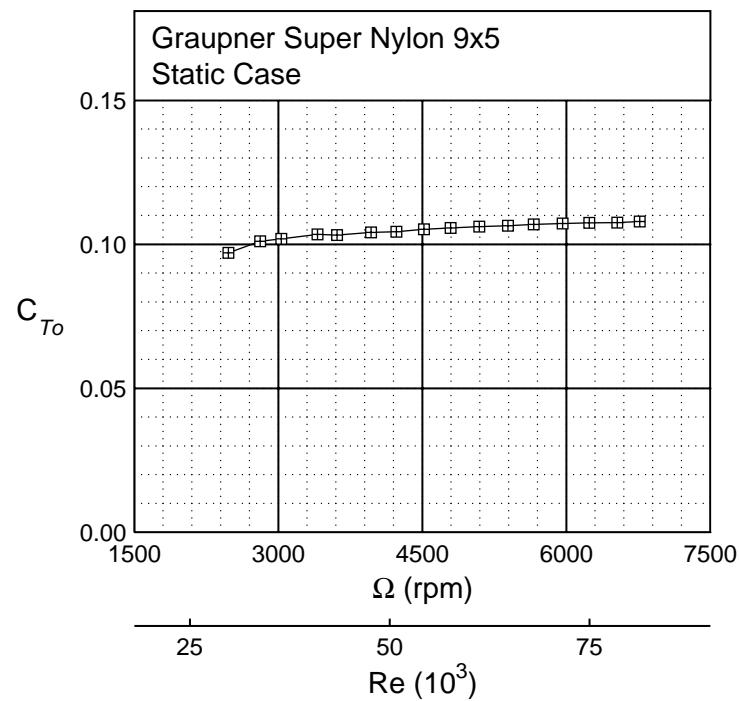


Figure 5.251: Graupner Super Nylon 9×5 static thrust.

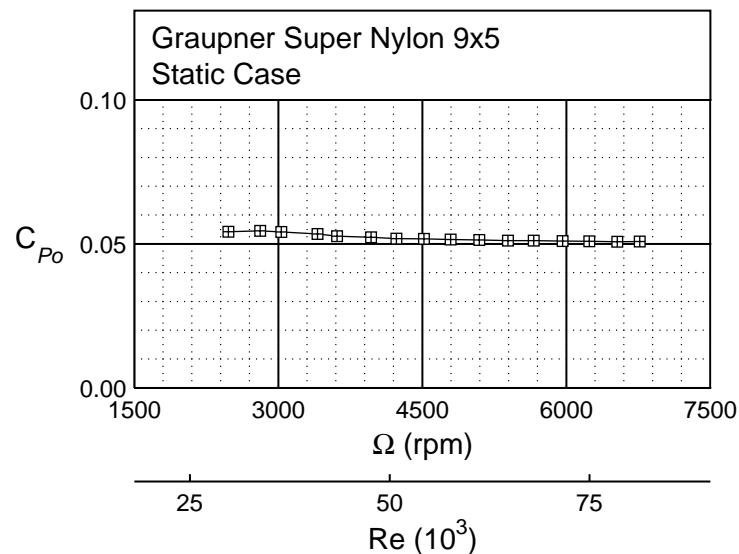
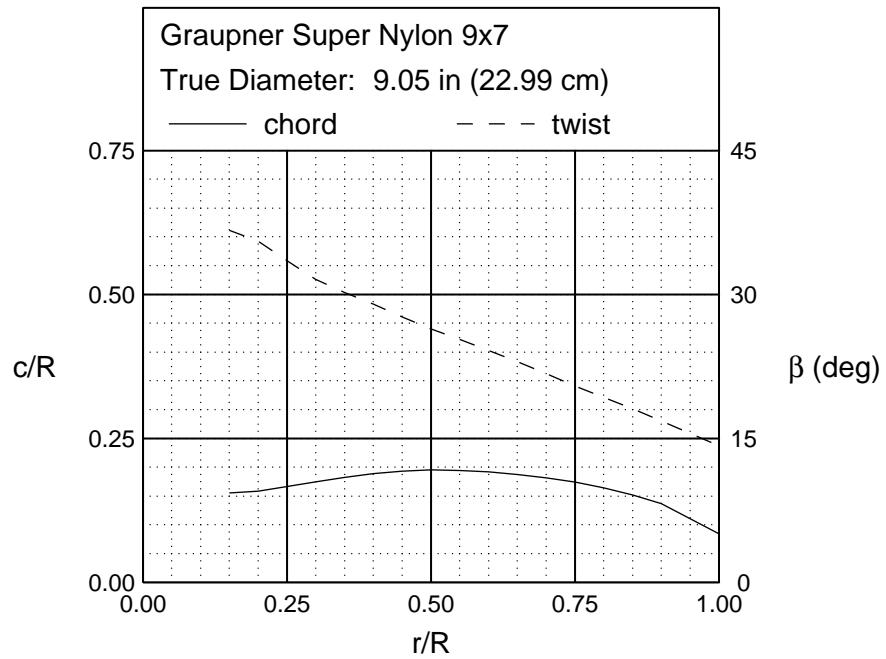


Figure 5.252: Graupner Super Nylon 9×5 static power.



Front View



Side View

Figure 5.253: Graupner Super Nylon 9×7 geometric characteristics.

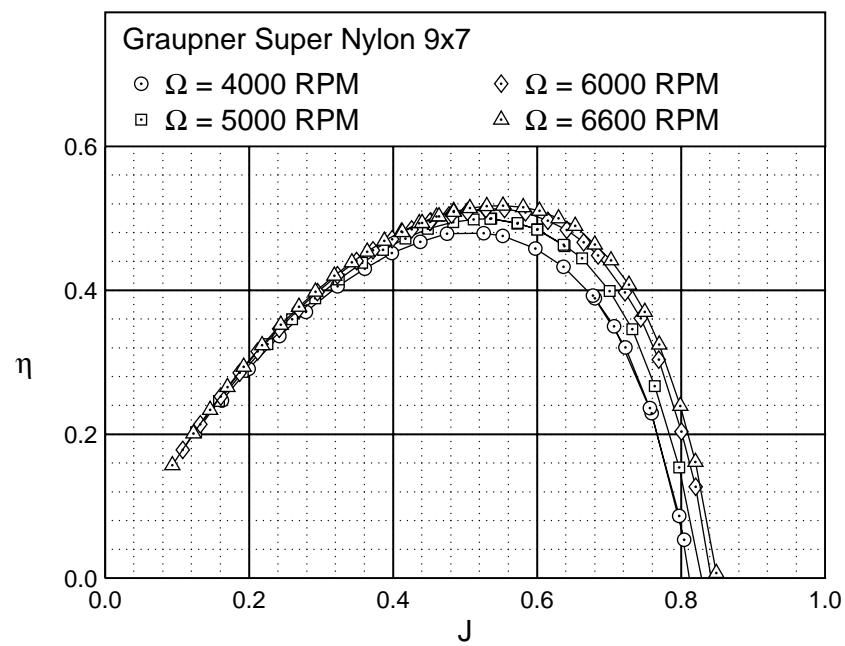


Figure 5.254: Graupner Super Nylon 9×7 efficiency curves.

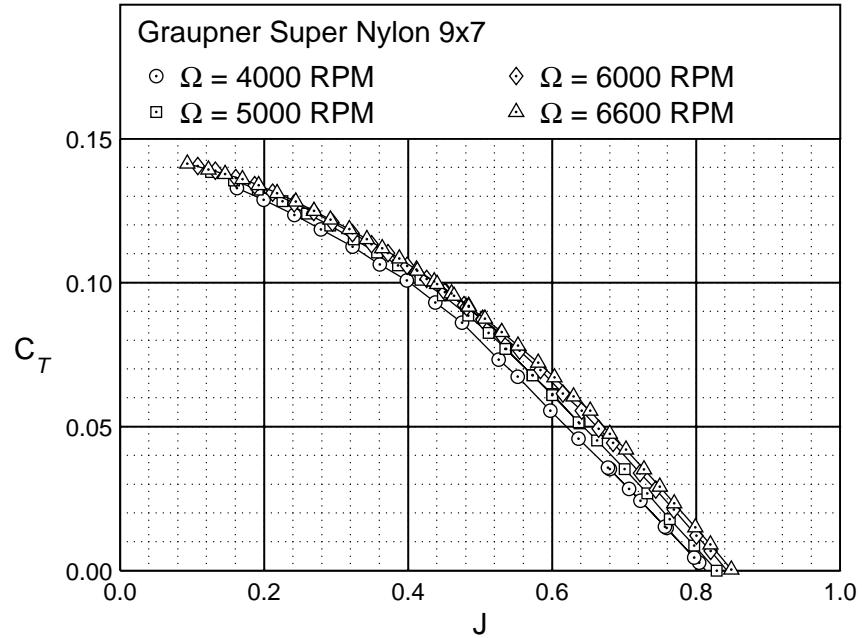


Figure 5.255: Graupner Super Nylon 9×7 thrust characteristics.

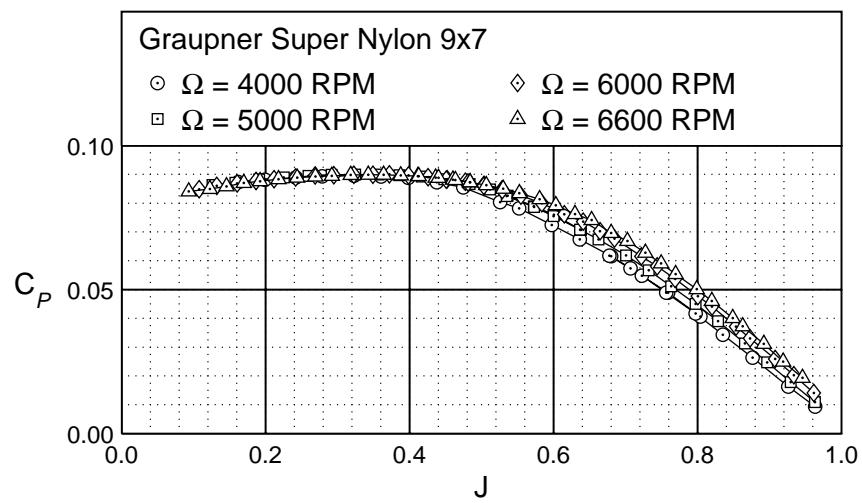


Figure 5.256: Graupner Super Nylon 9×7 power characteristics.

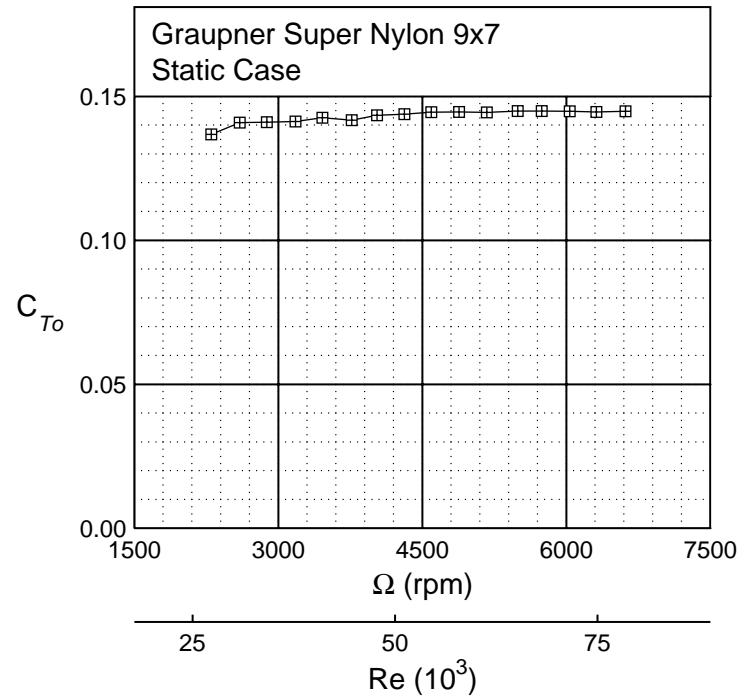


Figure 5.257: Graupner Super Nylon 9×7 static thrust.

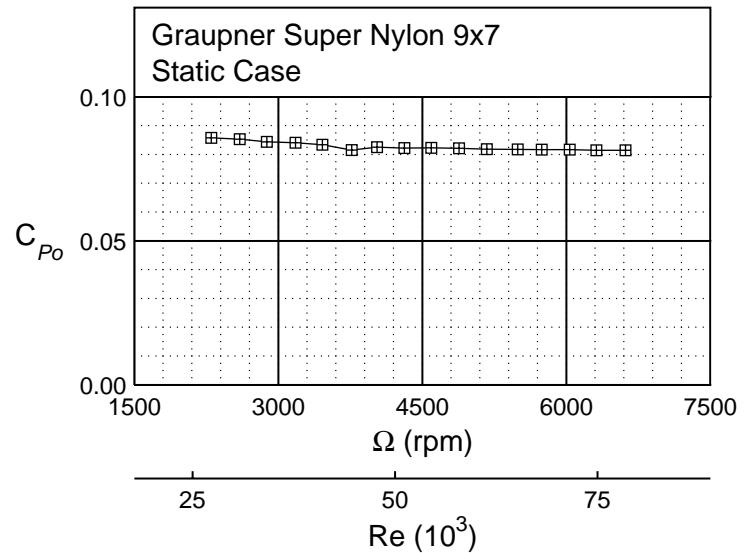
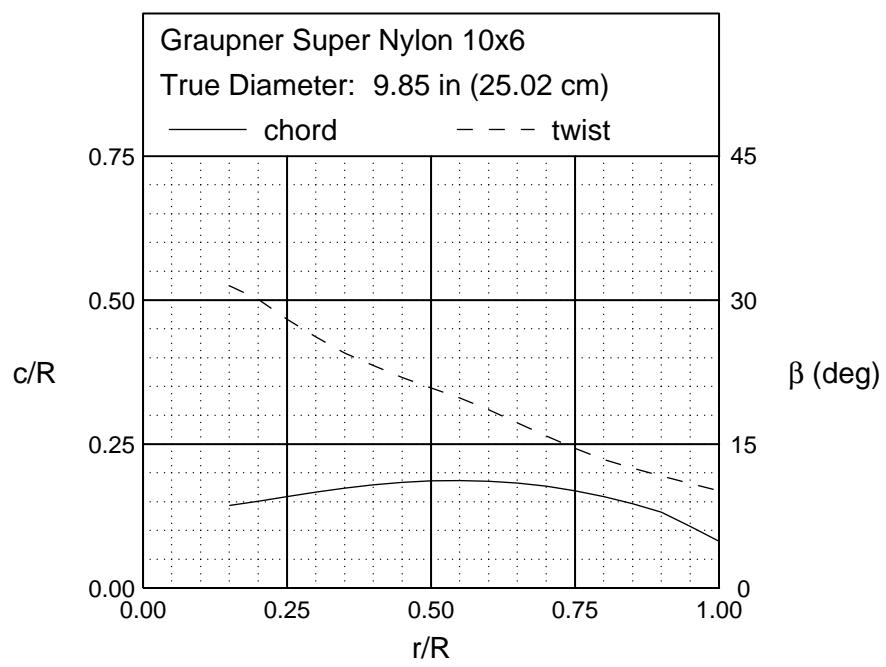


Figure 5.258: Graupner Super Nylon 9×7 static power.



Front View



Side View

Figure 5.259: Graupner Super Nylon 10×6 geometric characteristics.

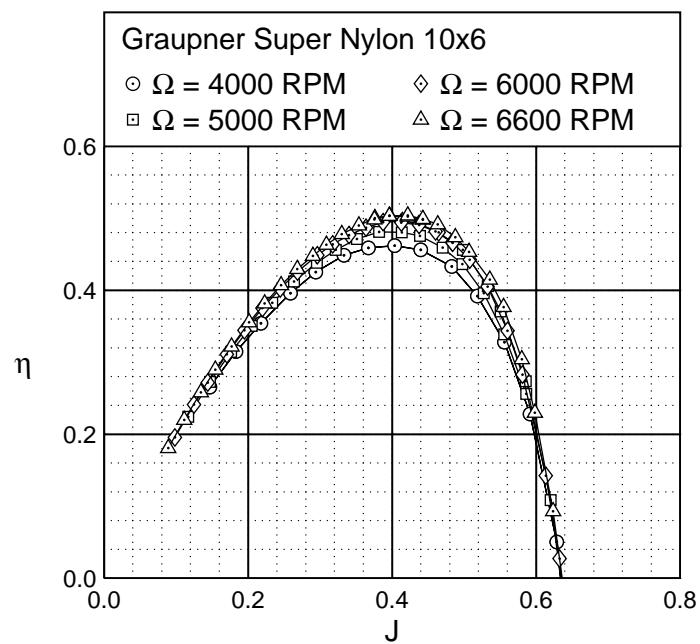


Figure 5.260: Graupner Super Nylon 10×6 efficiency curves.

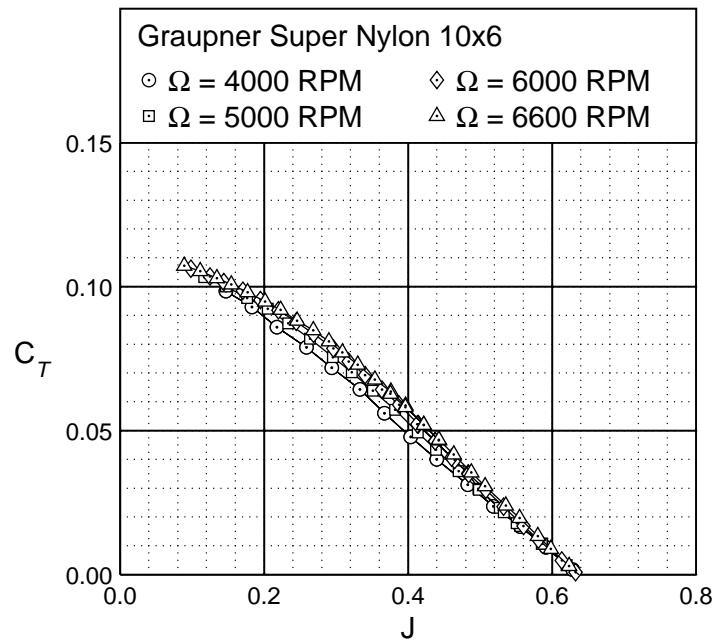


Figure 5.261: Graupner Super Nylon 10×6 thrust characteristics.

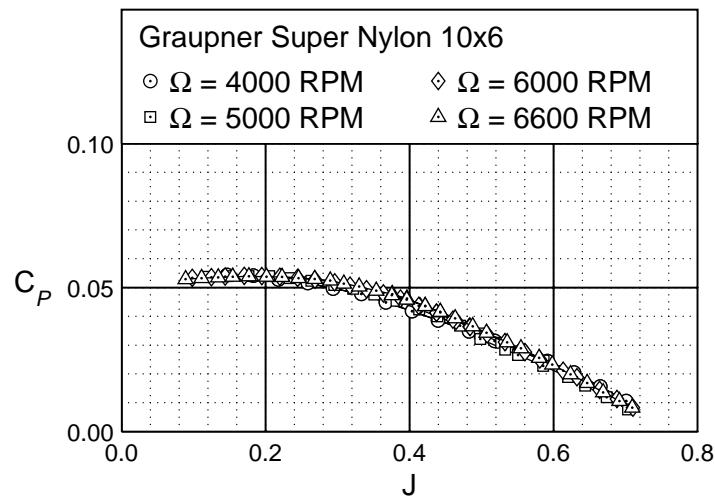


Figure 5.262: Graupner Super Nylon 10×6 power characteristics.

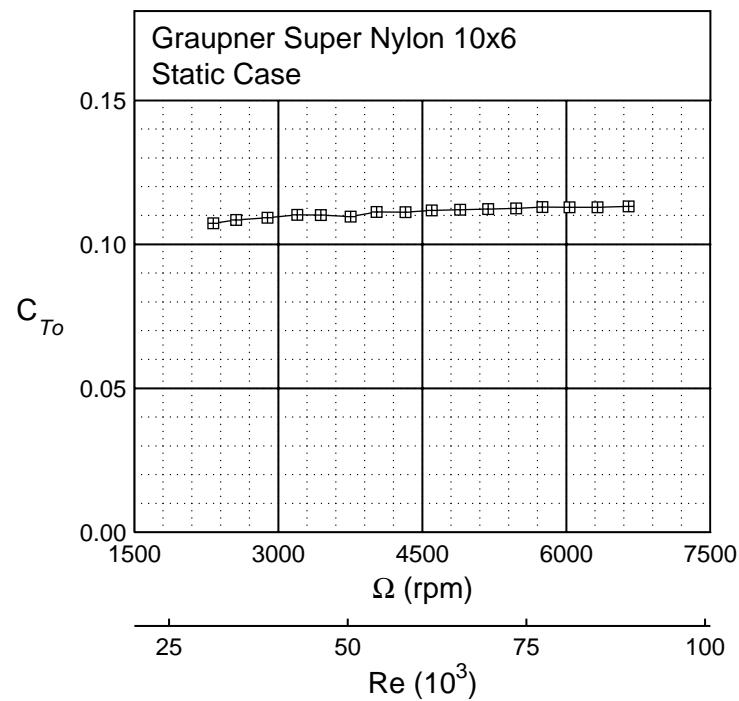


Figure 5.263: Graupner Super Nylon 10×6 static thrust.

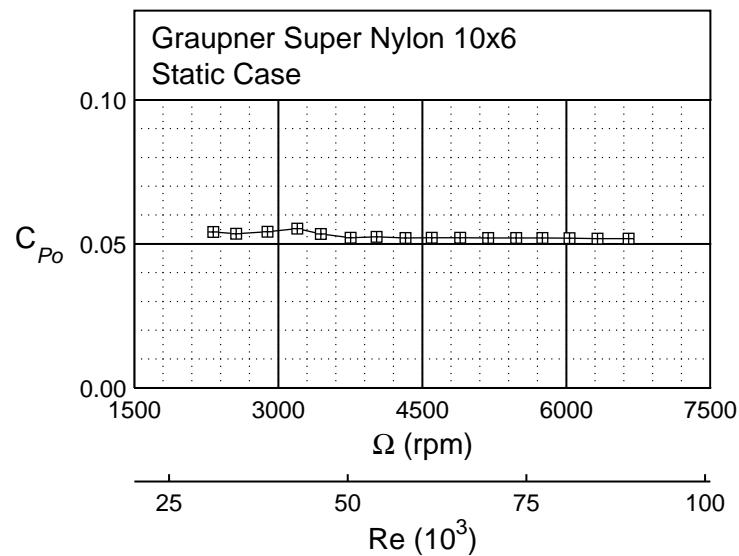
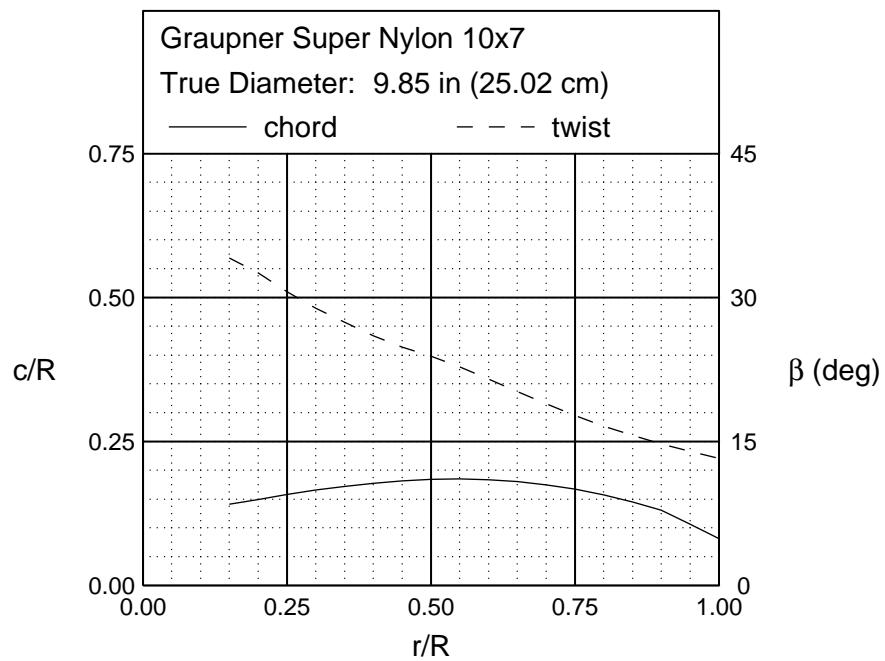


Figure 5.264: Graupner Super Nylon 10×6 static power.



Front View



Side View

Figure 5.265: Graupner Super Nylon 10×7 geometric characteristics.

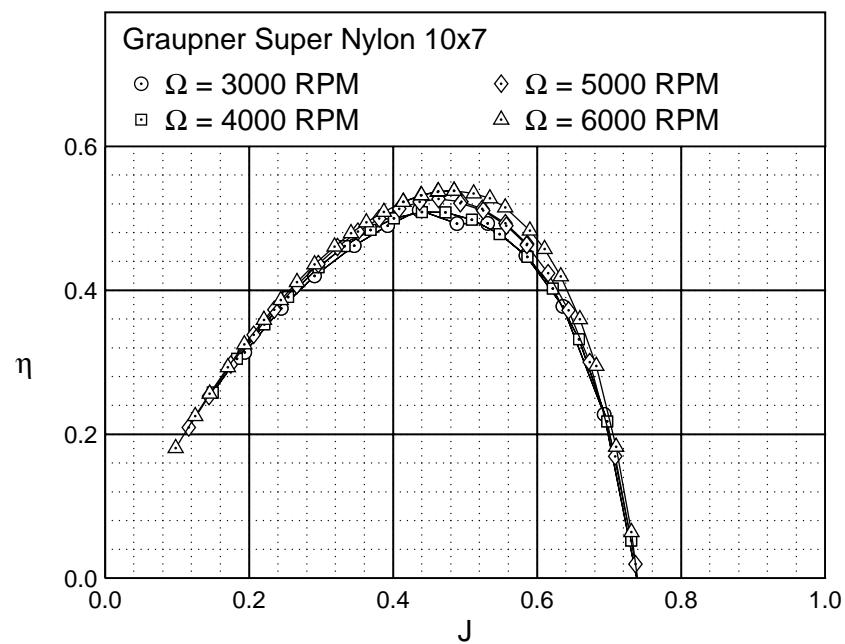


Figure 5.266: Graupner Super Nylon 10×7 efficiency curves.

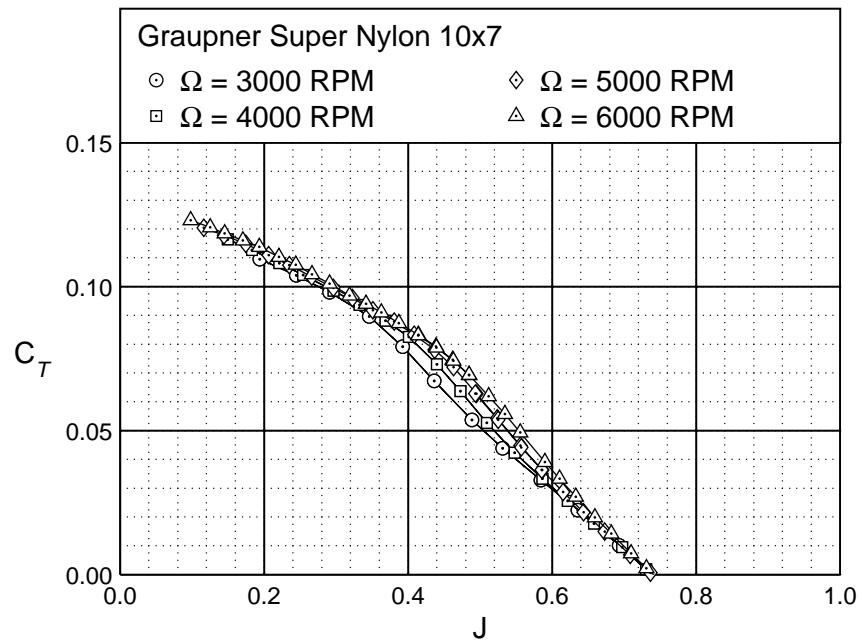


Figure 5.267: Graupner Super Nylon 10×7 thrust characteristics.

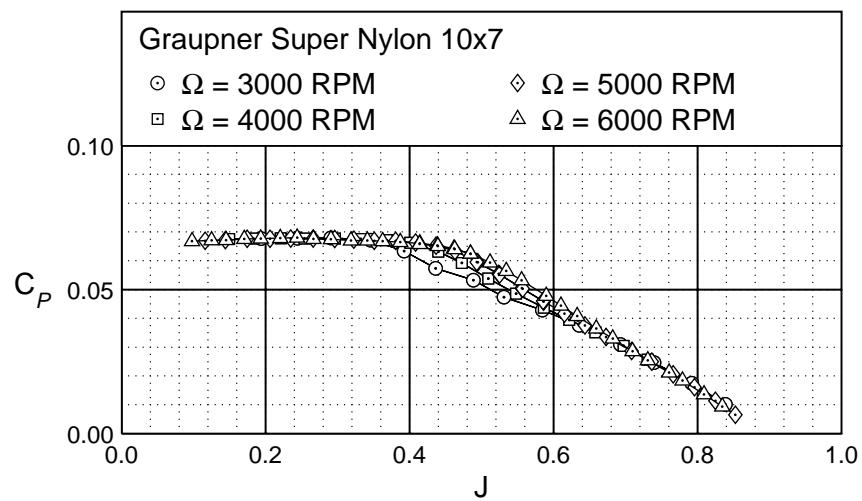


Figure 5.268: Graupner Super Nylon 10×7 power characteristics.

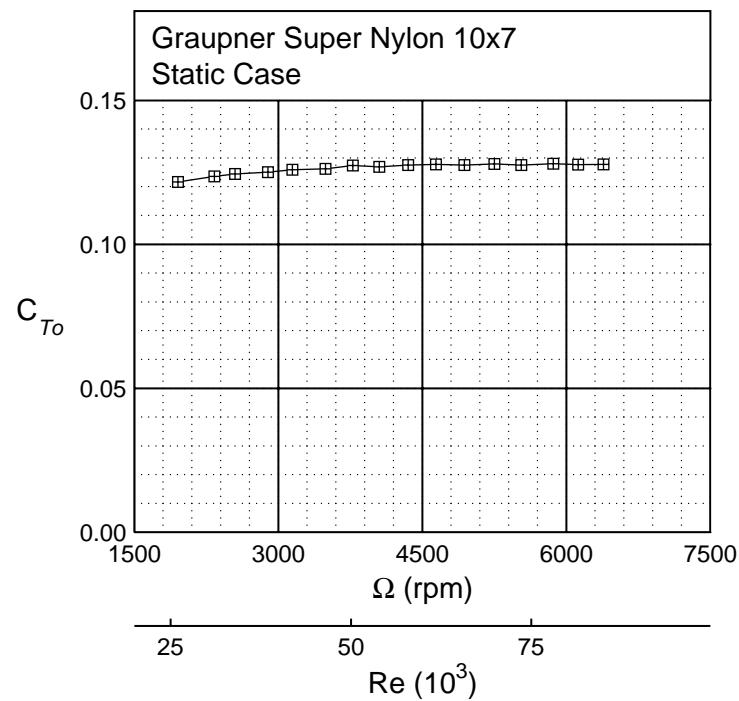


Figure 5.269: Graupner Super Nylon 10×7 static thrust.

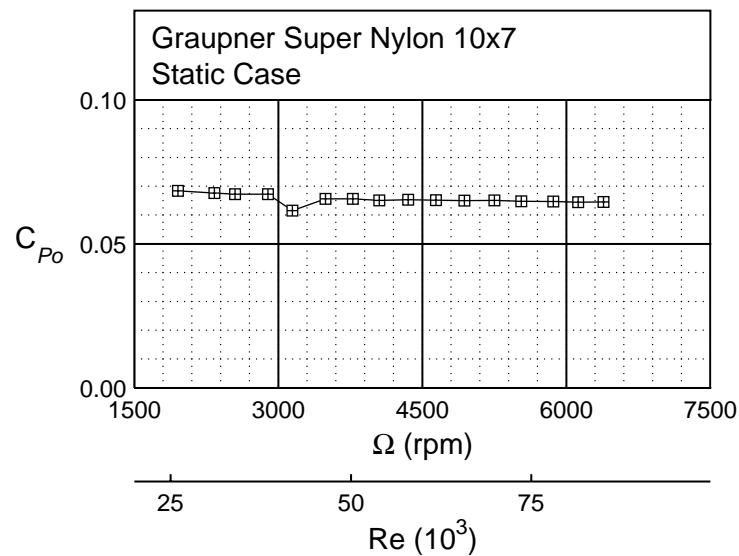
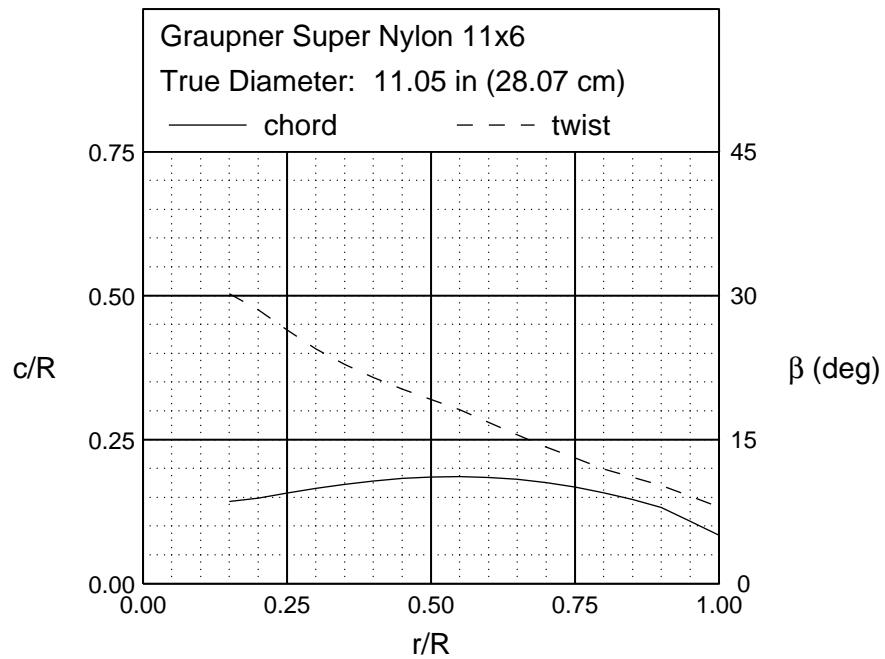


Figure 5.270: Graupner Super Nylon 10×7 static power.



Front View



Side View

Figure 5.271: Graupner Super Nylon 11×6 geometric characteristics.

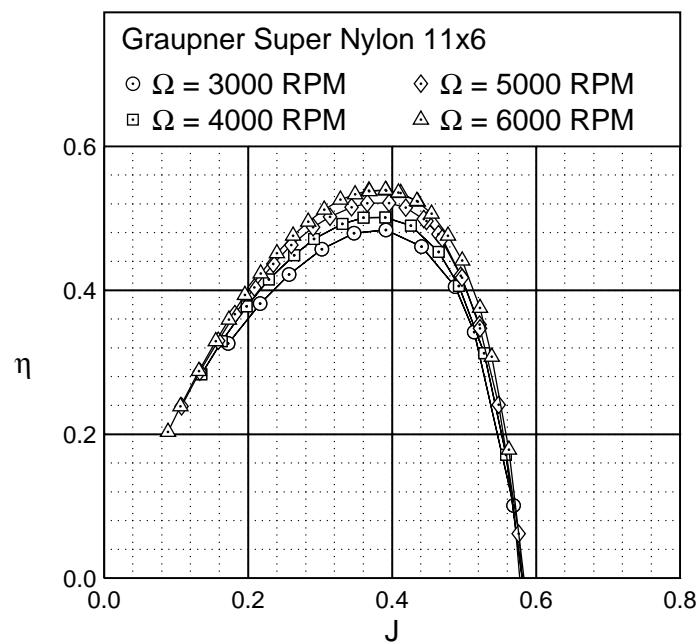


Figure 5.272: Graupner Super Nylon 11×6 efficiency curves.

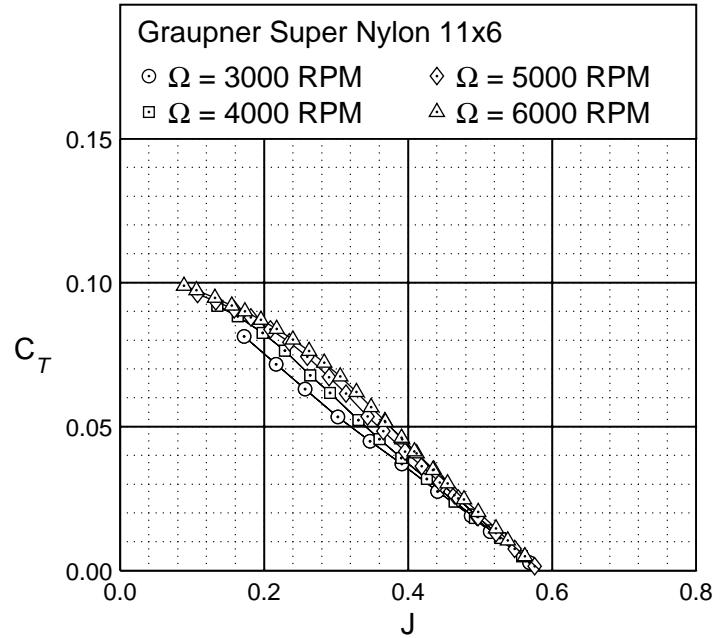


Figure 5.273: Graupner Super Nylon 11×6 thrust characteristics.

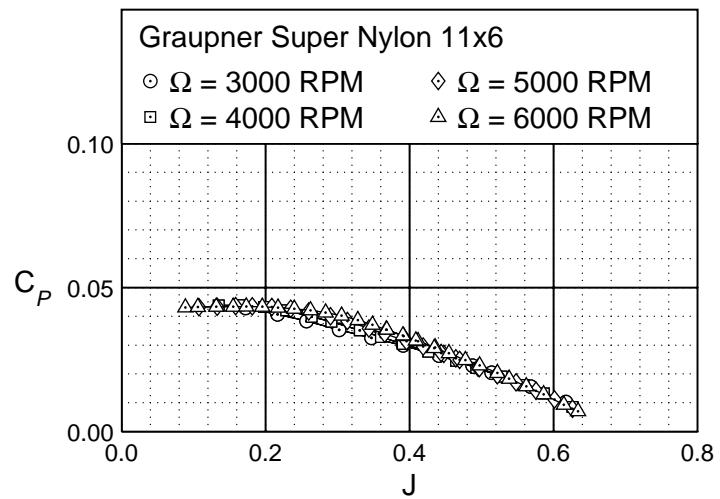


Figure 5.274: Graupner Super Nylon 11×6 power characteristics.

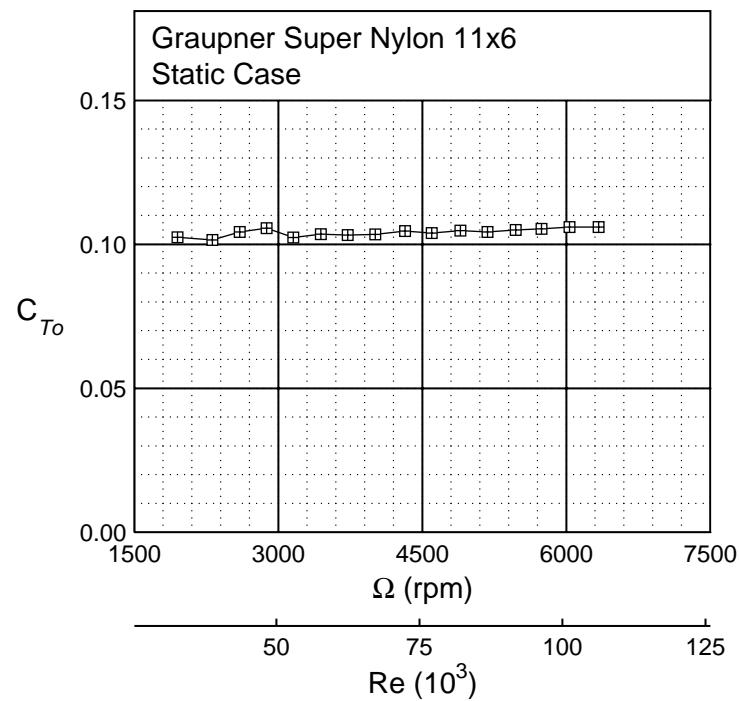


Figure 5.275: Graupner Super Nylon 11×6 static thrust.

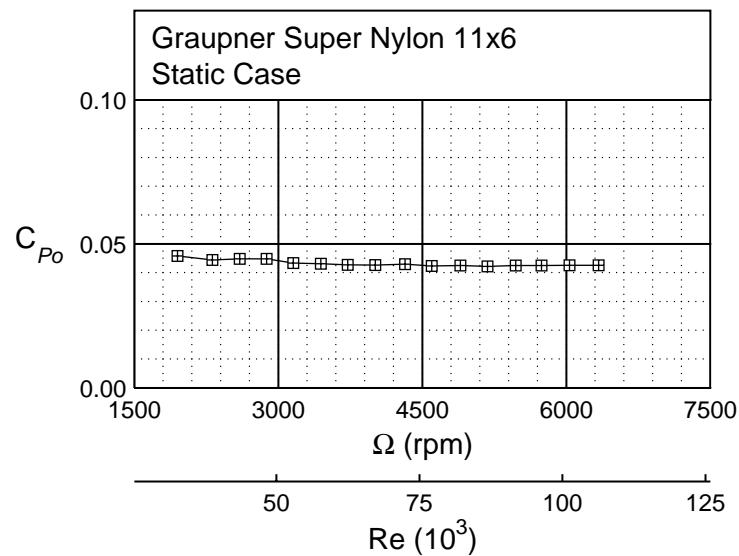
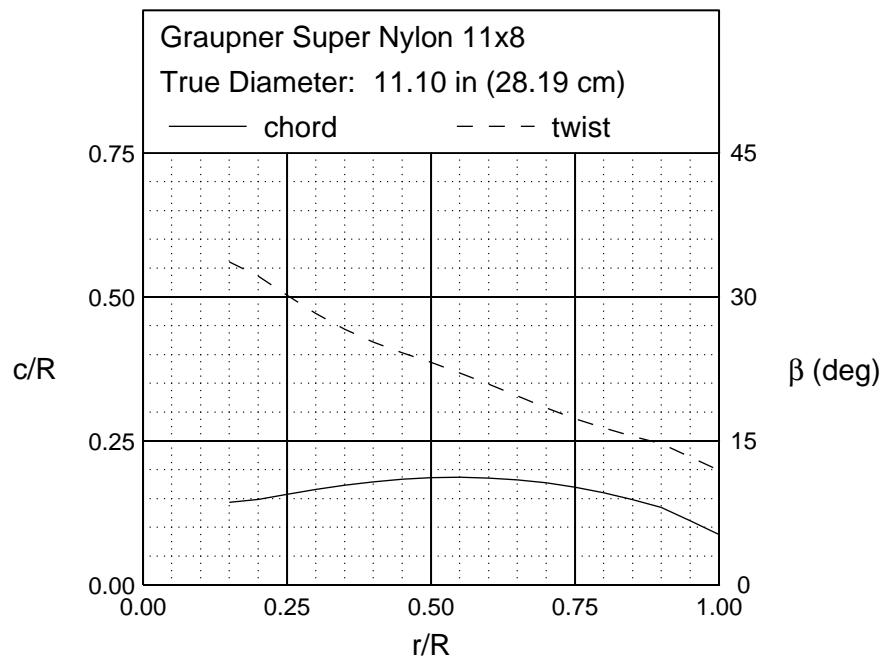


Figure 5.276: Graupner Super Nylon 11×6 static power.



Front View



Side View

Figure 5.277: Graupner Super Nylon 11×8 geometric characteristics.

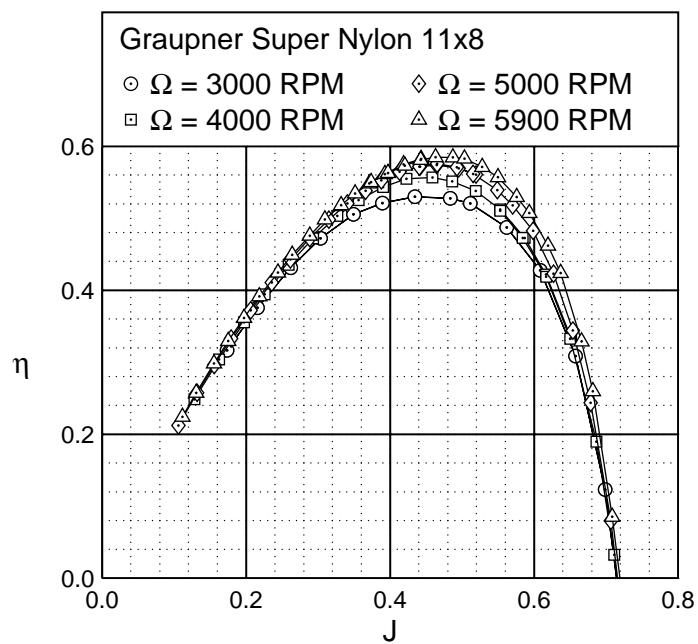


Figure 5.278: Graupner Super Nylon 11×8 efficiency curves.

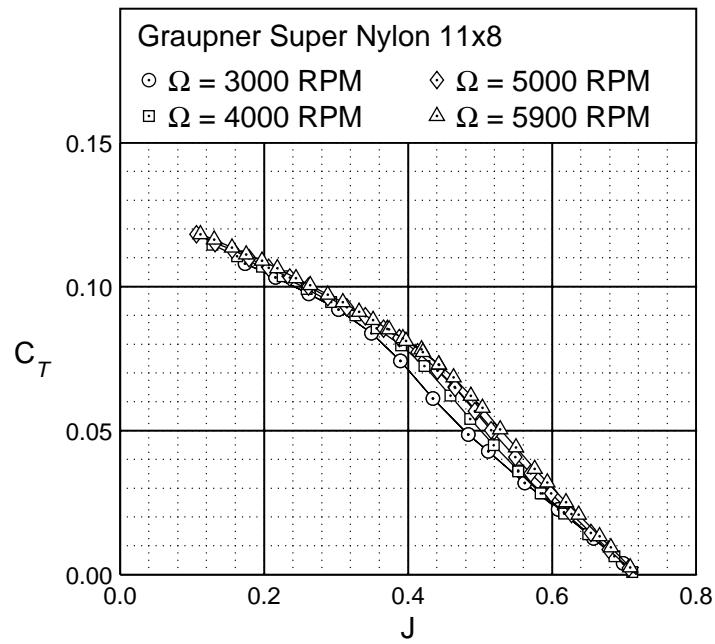


Figure 5.279: Graupner Super Nylon 11×8 thrust characteristics.

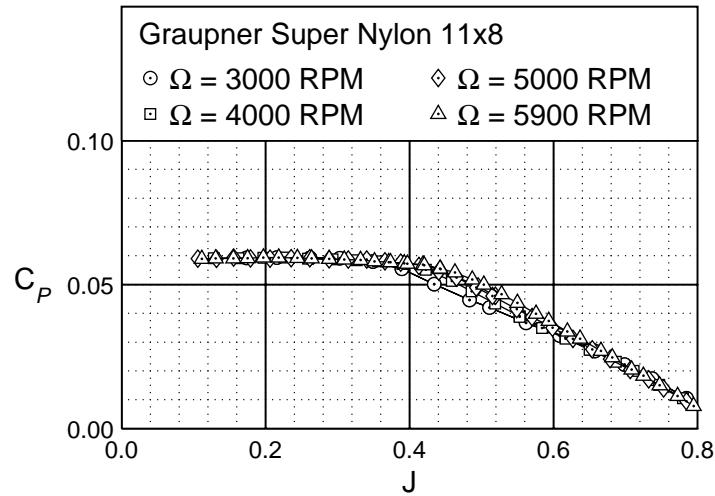


Figure 5.280: Graupner Super Nylon 11×8 power characteristics.

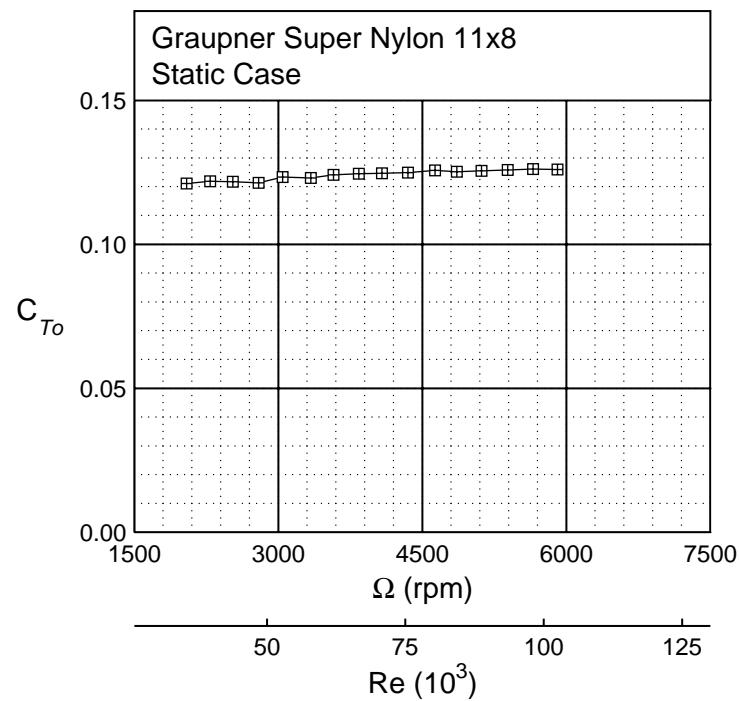


Figure 5.281: Graupner Super Nylon 11×8 static thrust.

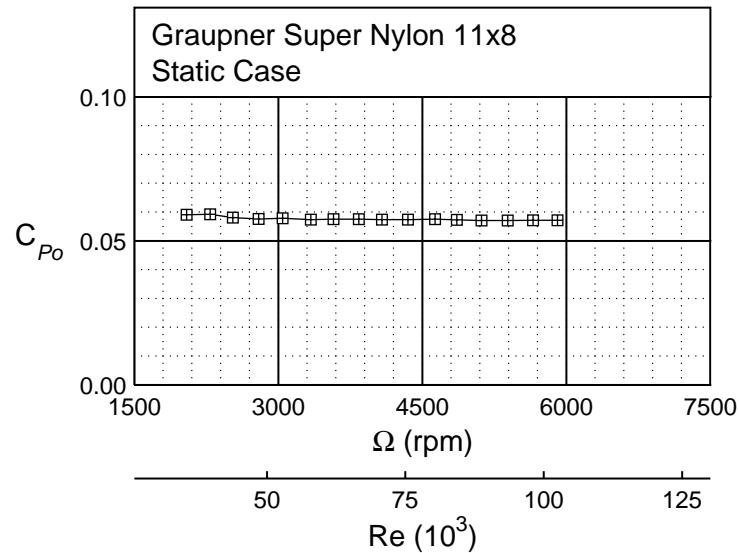
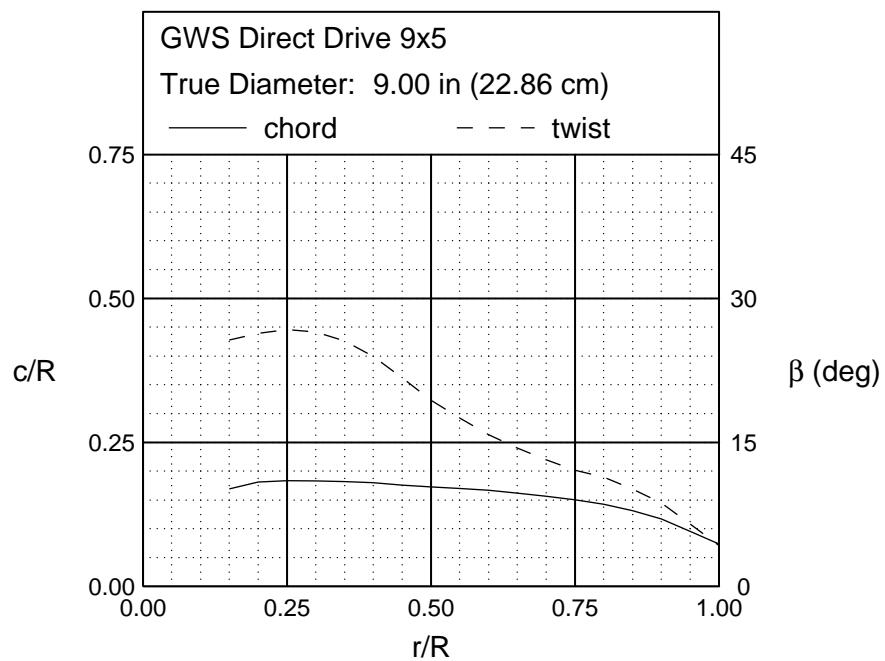


Figure 5.282: Graupner Super Nylon 11×8 static power.



Front View



Side View

Figure 5.283: GWS Direct Drive 9×5 geometric characteristics.

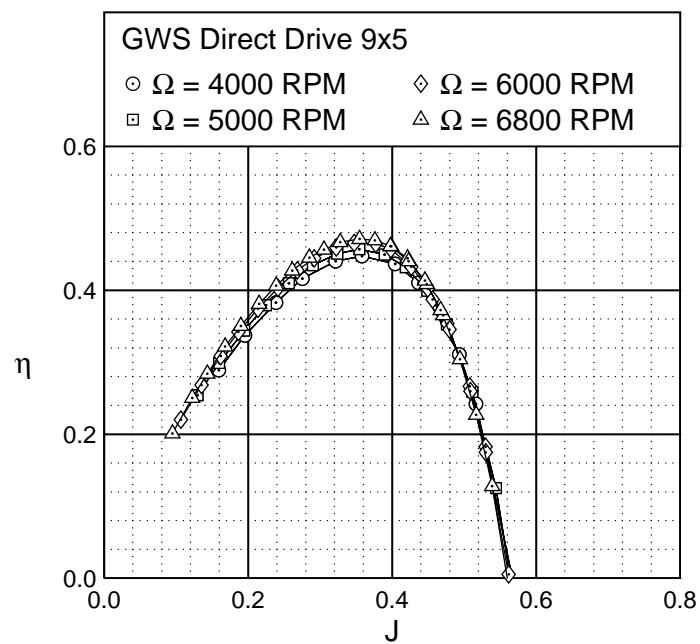


Figure 5.284: GWS Direct Drive 9×5 efficiency curves.

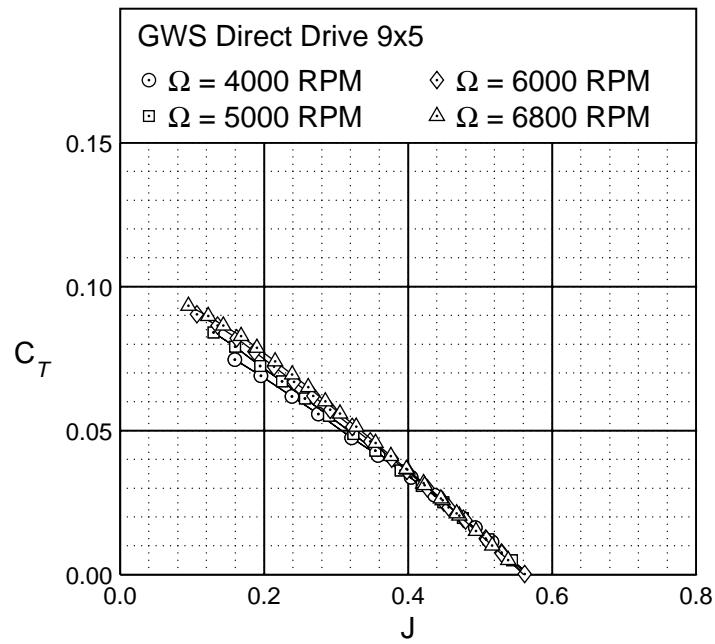


Figure 5.285: GWS Direct Drive 9×5 thrust characteristics.

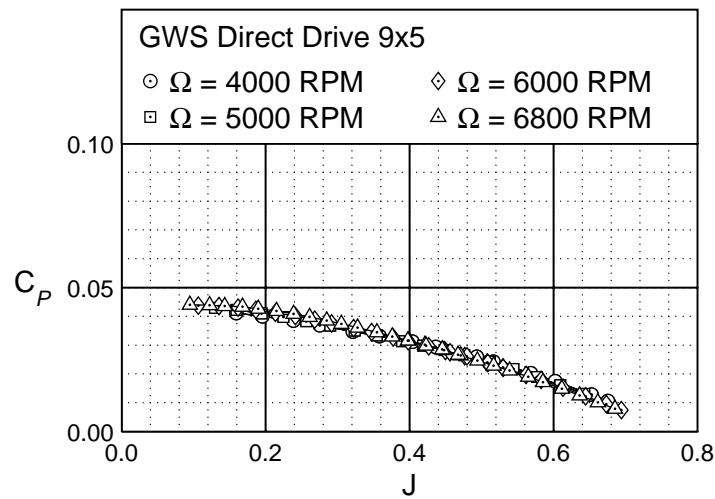


Figure 5.286: GWS Direct Drive 9×5 power characteristics.

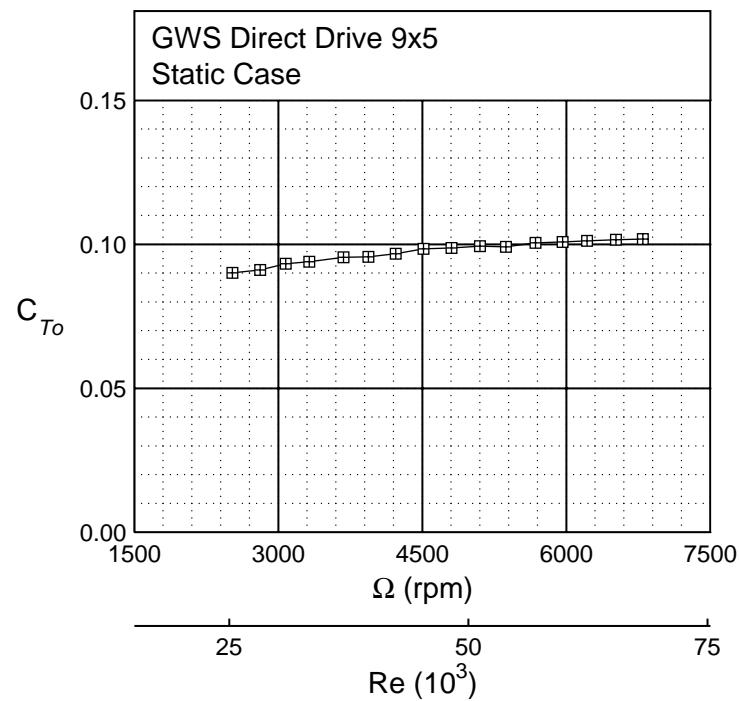


Figure 5.287: GWS Direct Drive 9×5 static thrust.

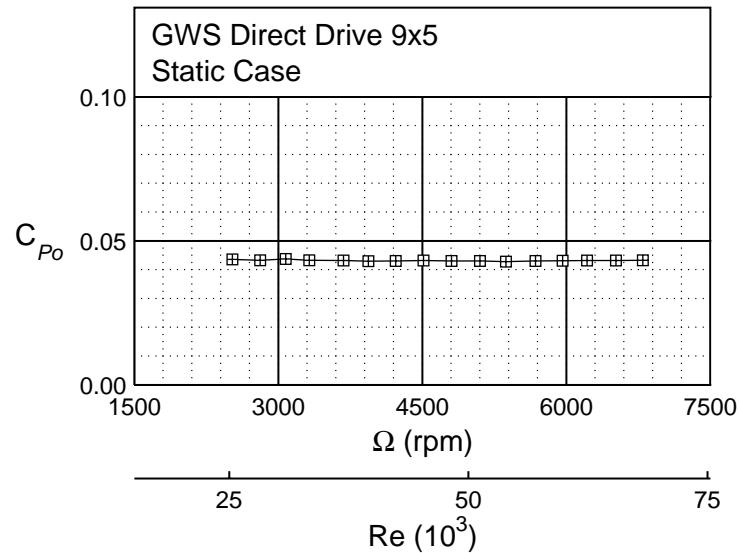
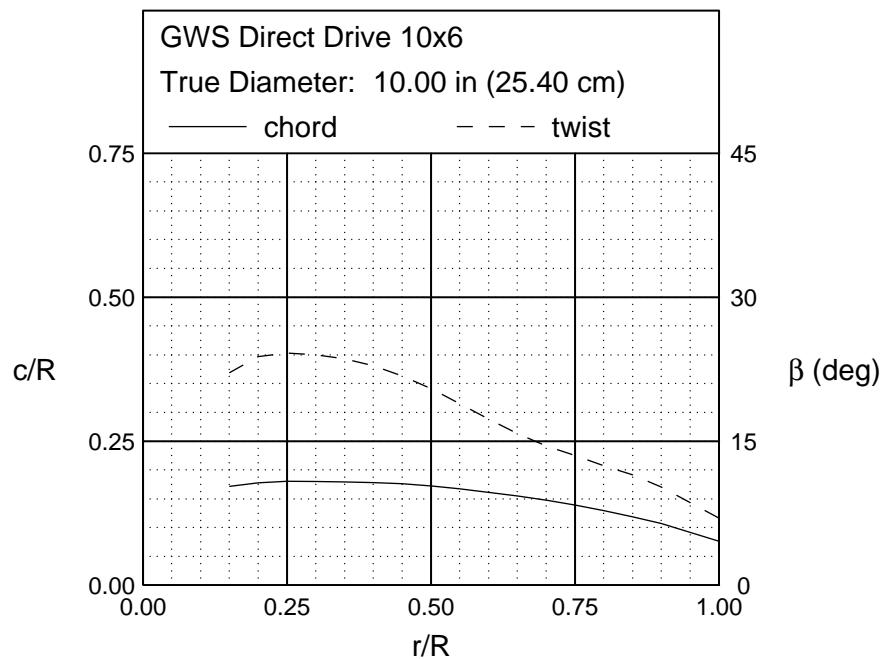


Figure 5.288: GWS Direct Drive 9×5 static power.



Front View



Side View

Figure 5.289: GWS Direct Drive 10×6 geometric characteristics.

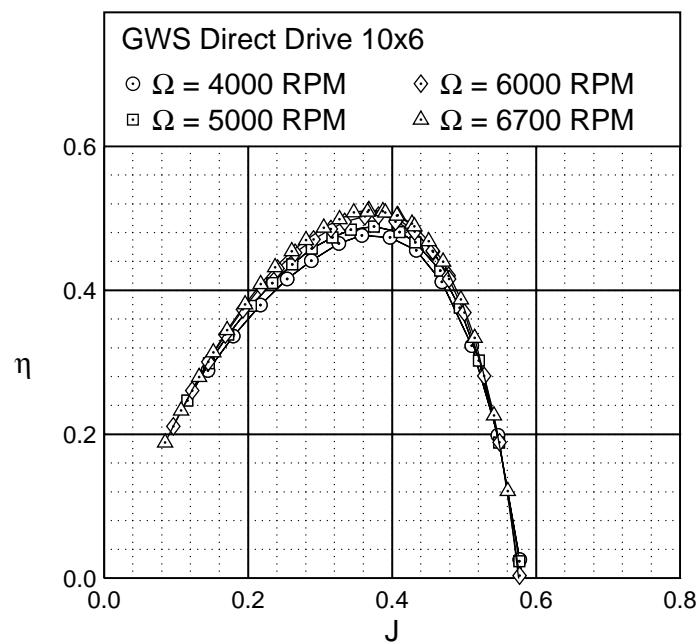


Figure 5.290: GWS Direct Drive 10×6 efficiency curves.

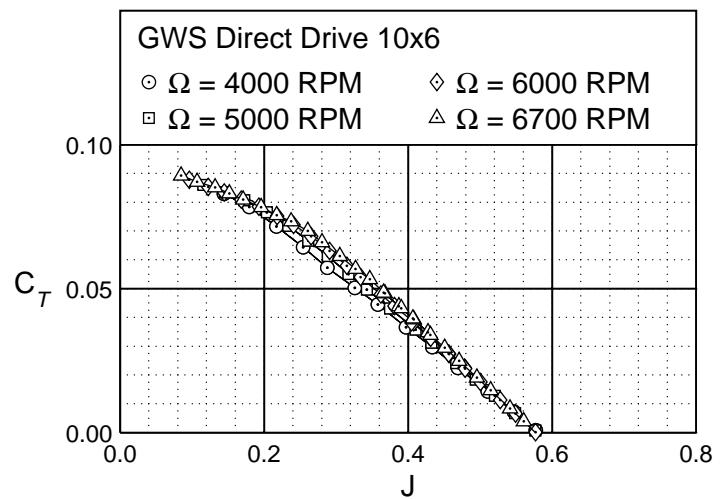


Figure 5.291: GWS Direct Drive 10×6 thrust characteristics.

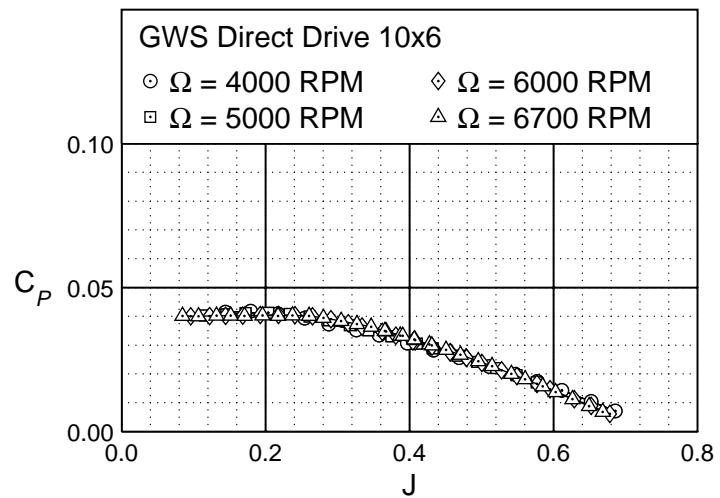


Figure 5.292: GWS Direct Drive 10×6 power characteristics.

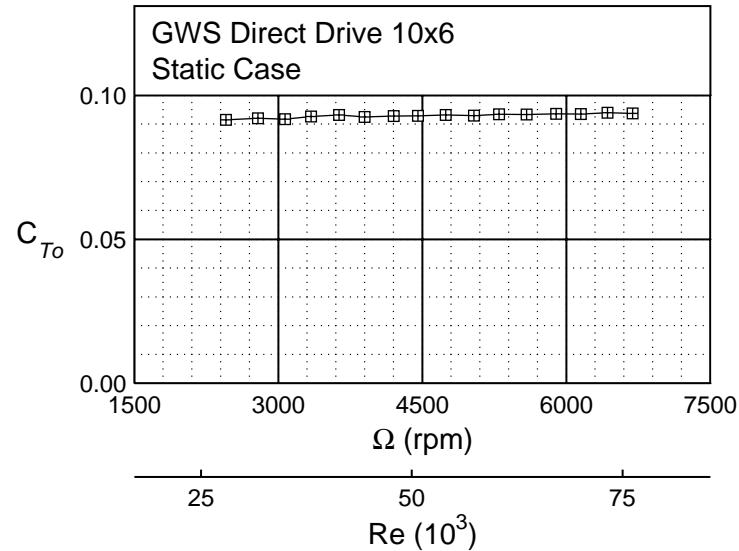


Figure 5.293: GWS Direct Drive 10×6 static thrust.

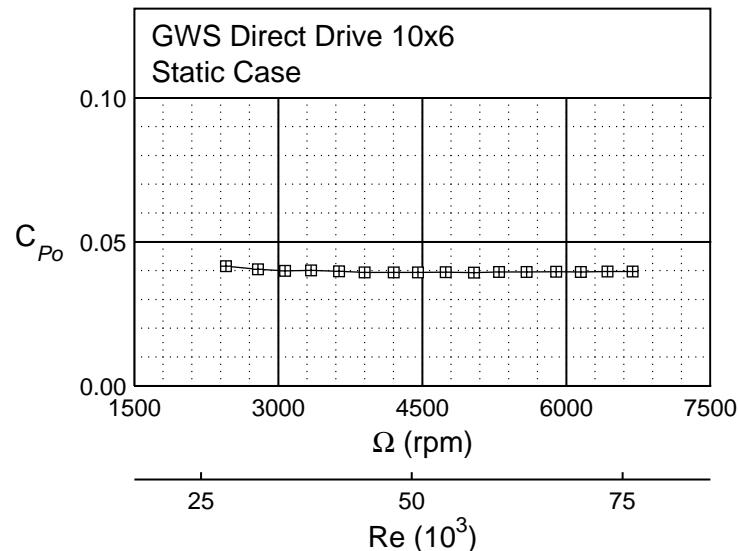
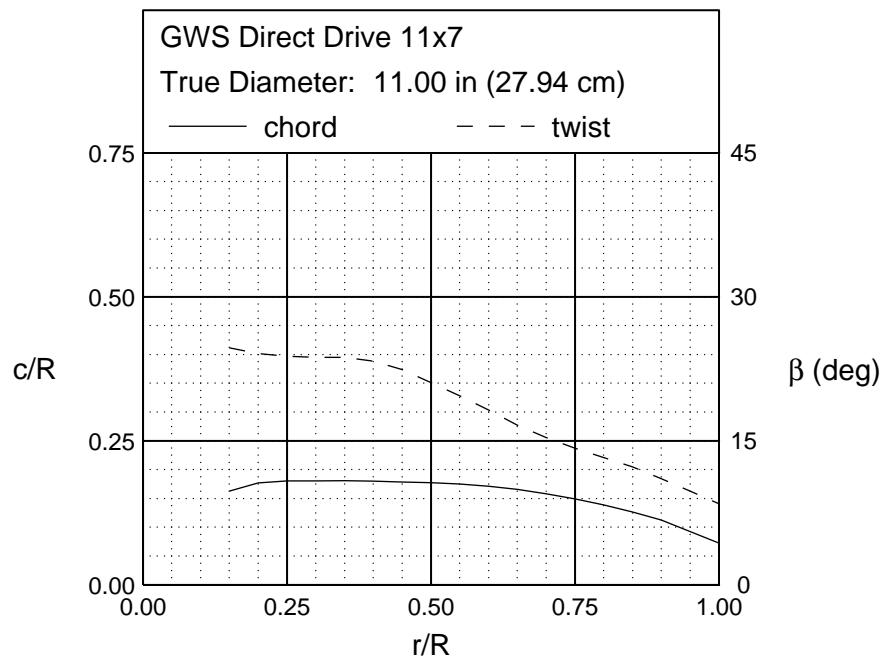


Figure 5.294: GWS Direct Drive 10×6 static power.



Front View



Side View

Figure 5.295: GWS Direct Drive 11×7 geometric characteristics.

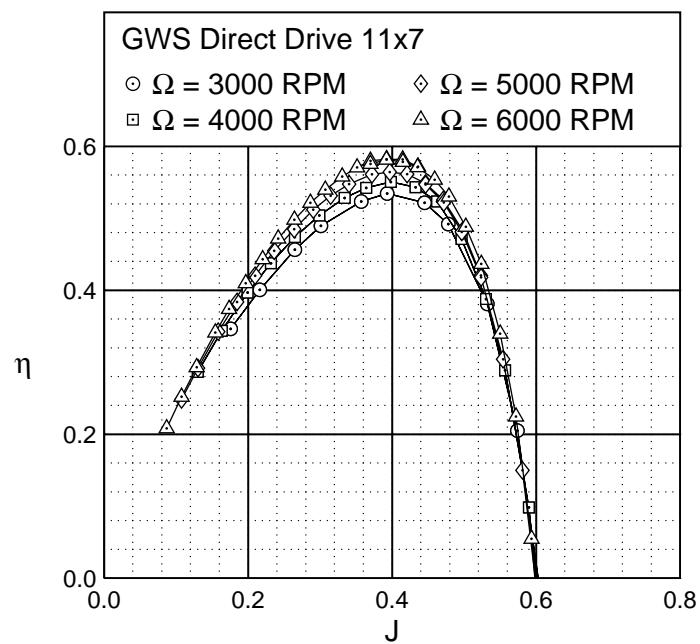


Figure 5.296: GWS Direct Drive 11×7 efficiency curves.

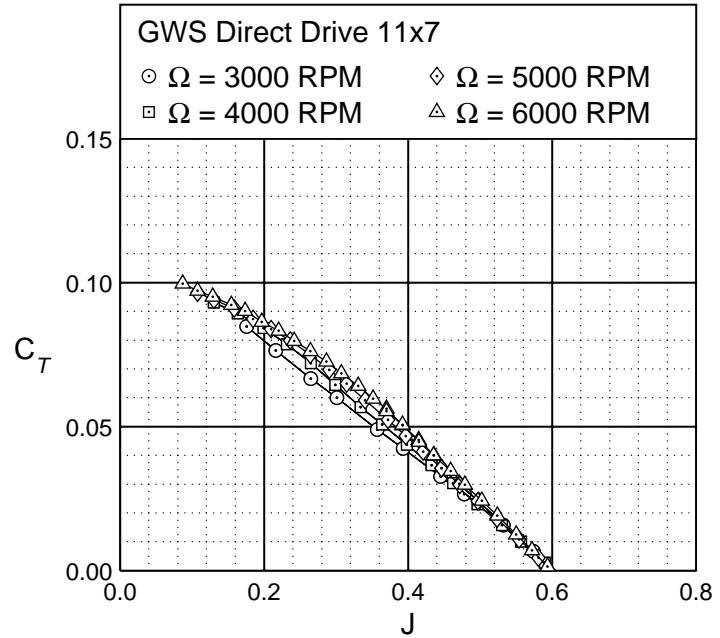


Figure 5.297: GWS Direct Drive 11×7 thrust characteristics.

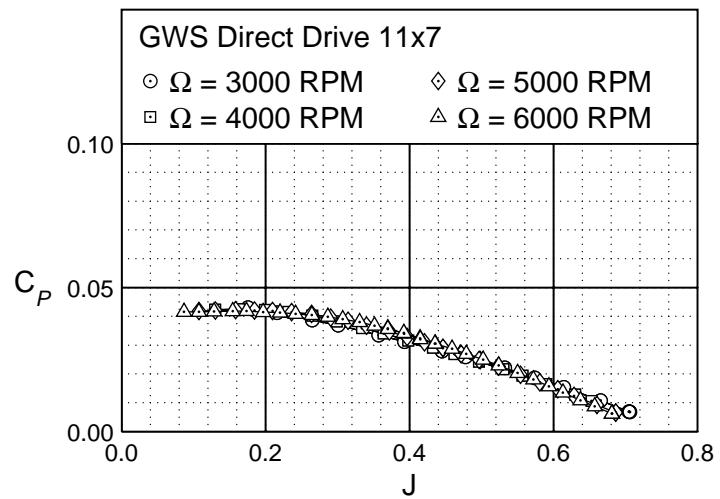


Figure 5.298: GWS Direct Drive 11×7 power characteristics.

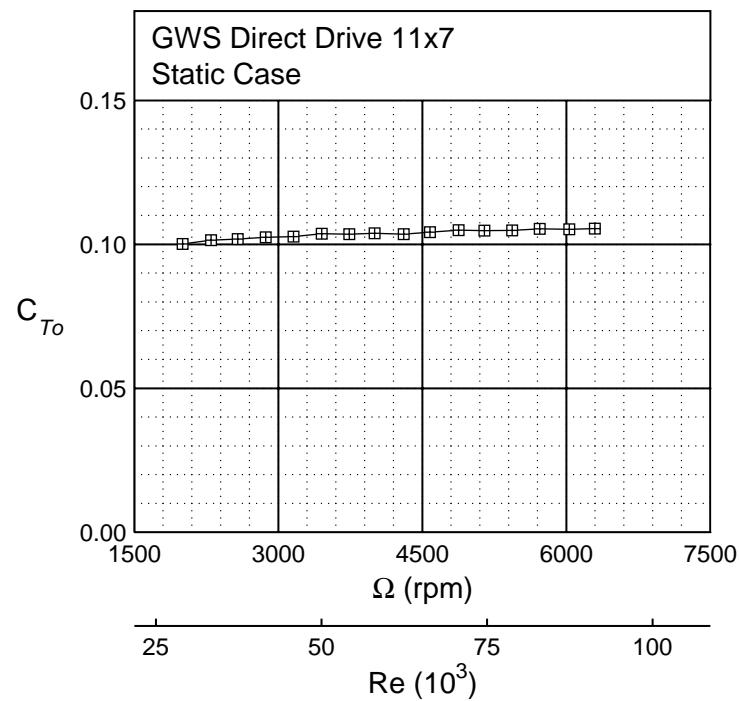


Figure 5.299: GWS Direct Drive 11×7 static thrust.

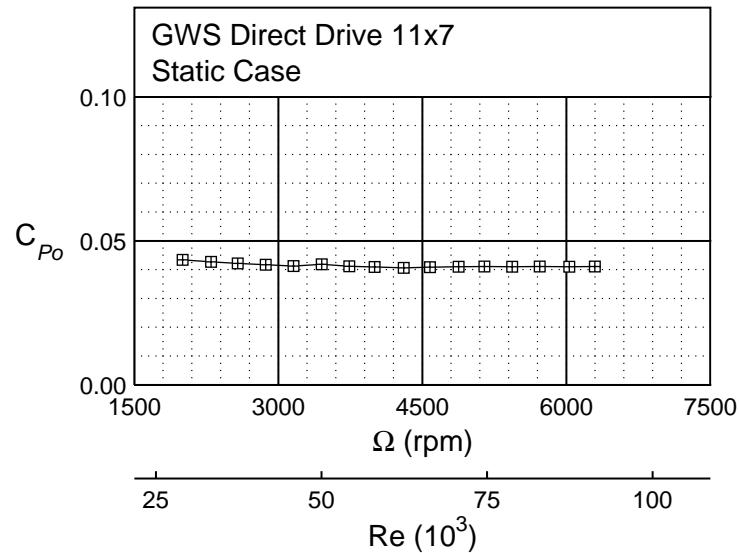
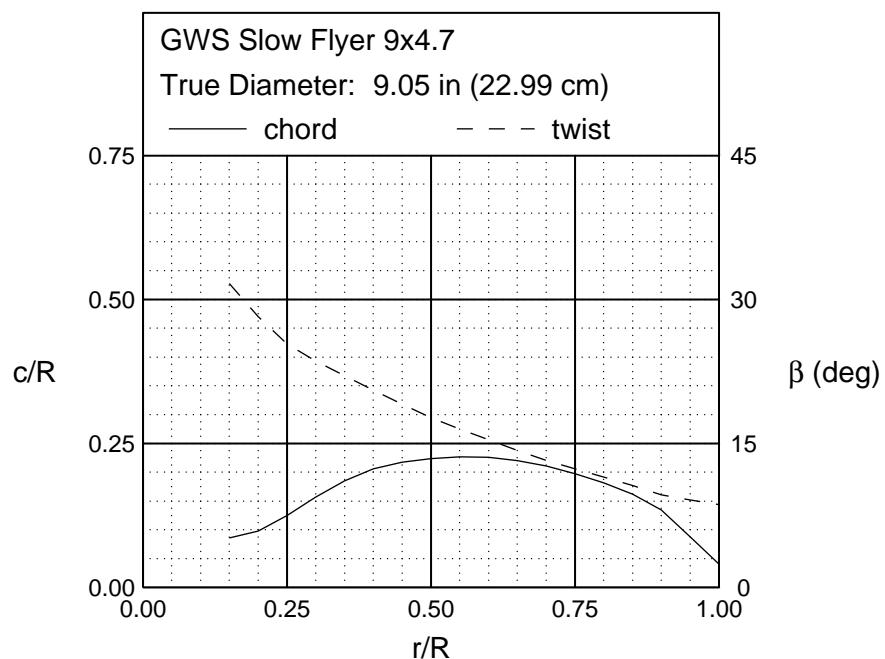


Figure 5.300: GWS Direct Drive 11×7 static power.



Front View



Side View

Figure 5.301: GWS Slow Flyer 9×4.7 geometric characteristics.

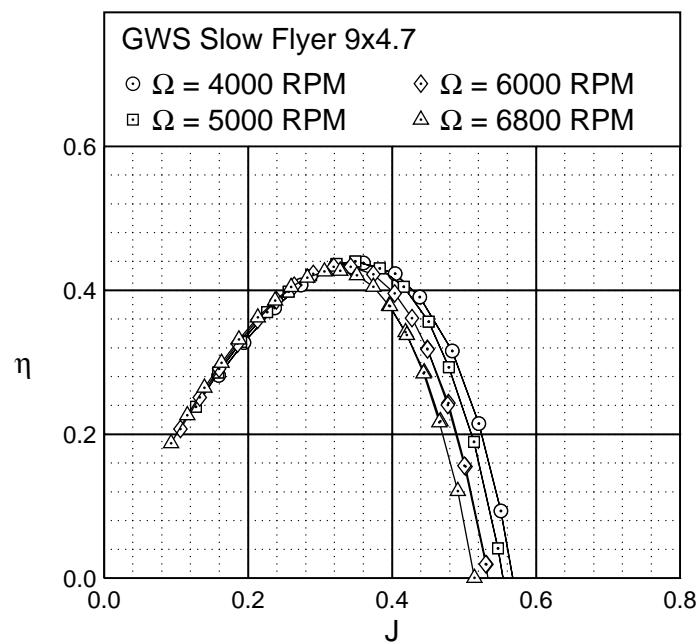


Figure 5.302: GWS Slow Flyer 9×4.7 efficiency curves.

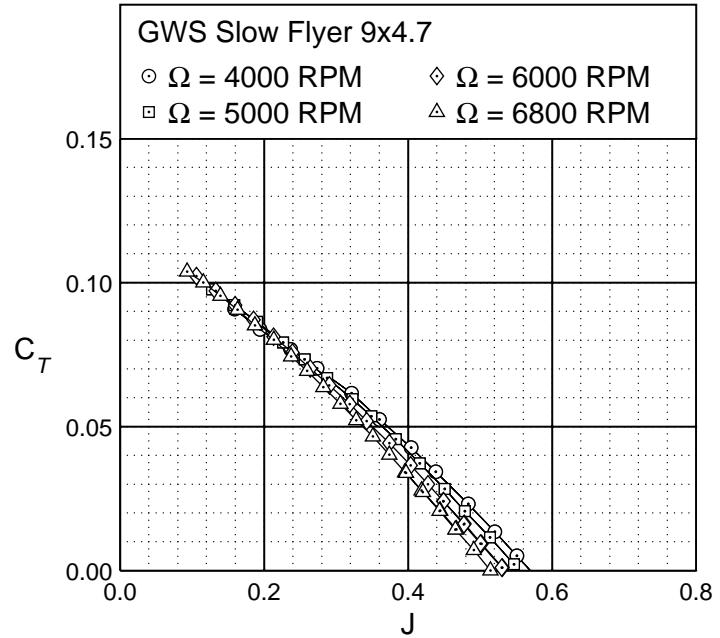


Figure 5.303: GWS Slow Flyer 9×4.7 thrust characteristics.

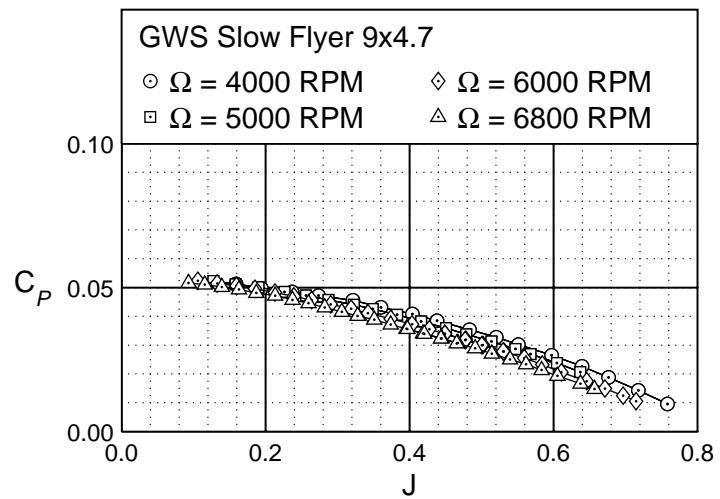


Figure 5.304: GWS Slow Flyer 9×4.7 power characteristics.

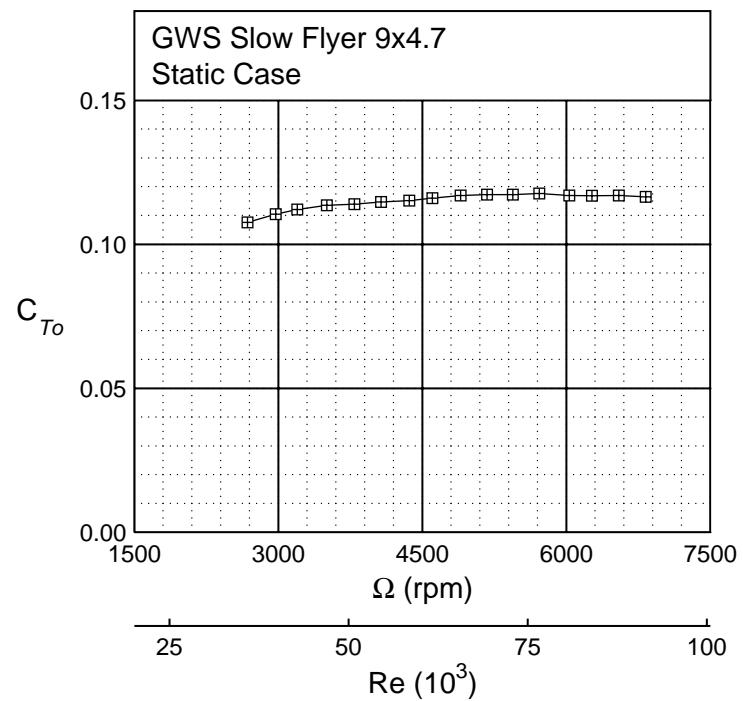


Figure 5.305: GWS Slow Flyer 9×4.7 static thrust.

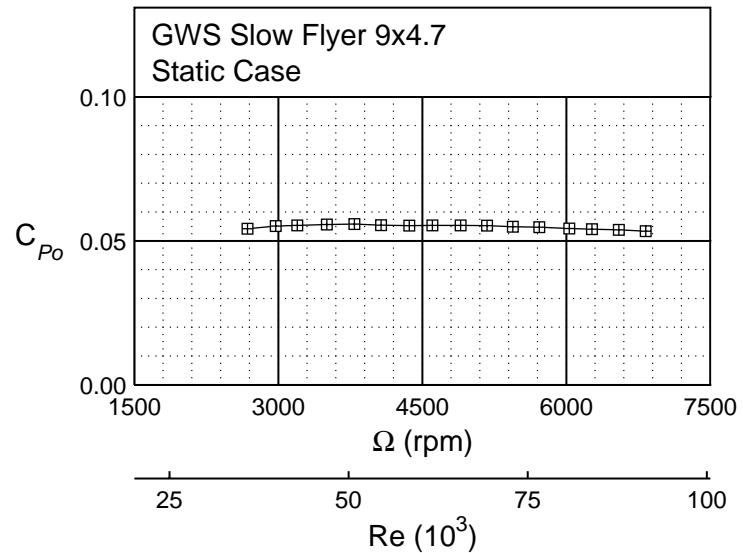
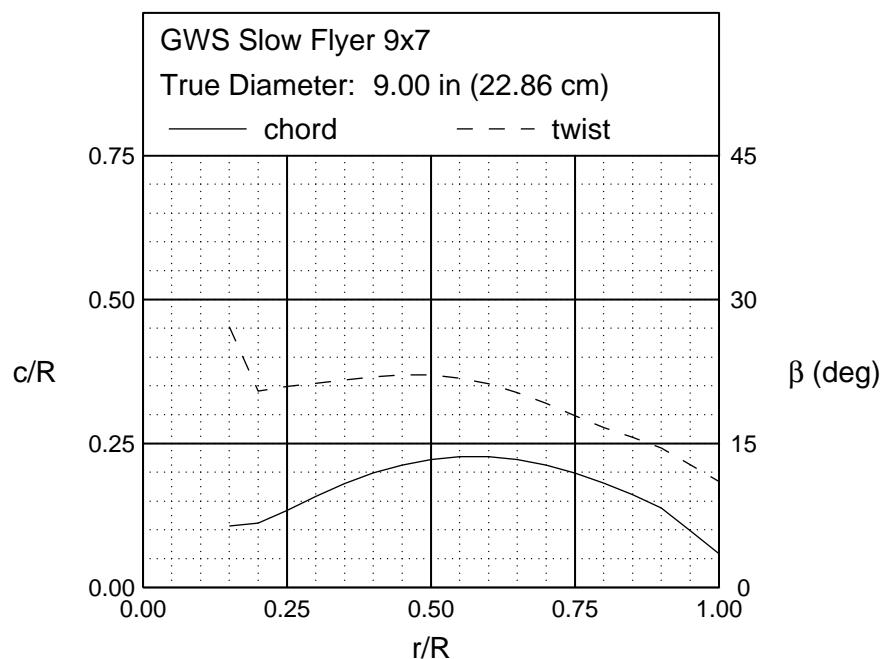


Figure 5.306: GWS Slow Flyer 9×4.7 static power.



Front View



Side View

Figure 5.307: GWS Slow Flyer 9×7 geometric characteristics.

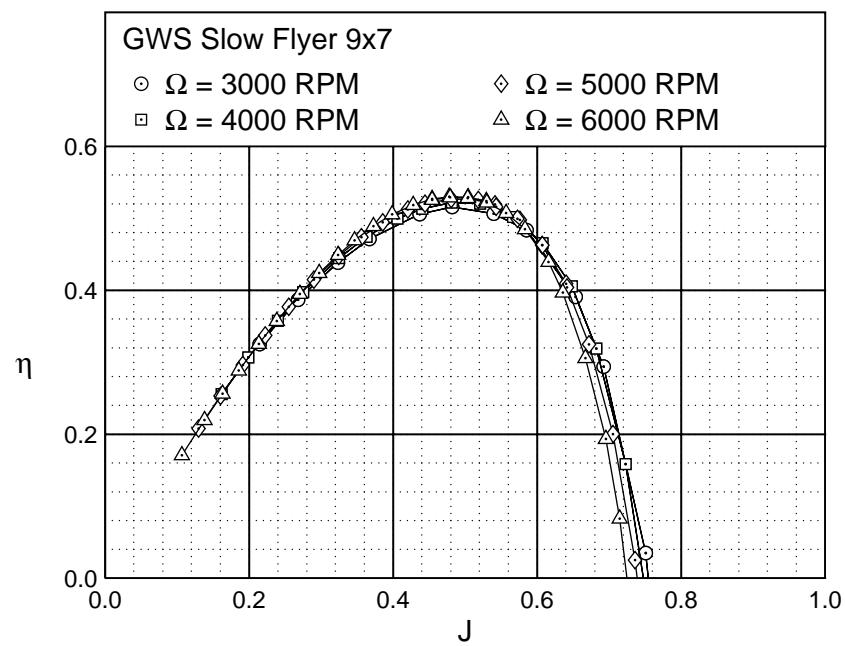


Figure 5.308: GWS Slow Flyer 9×7 efficiency curves.

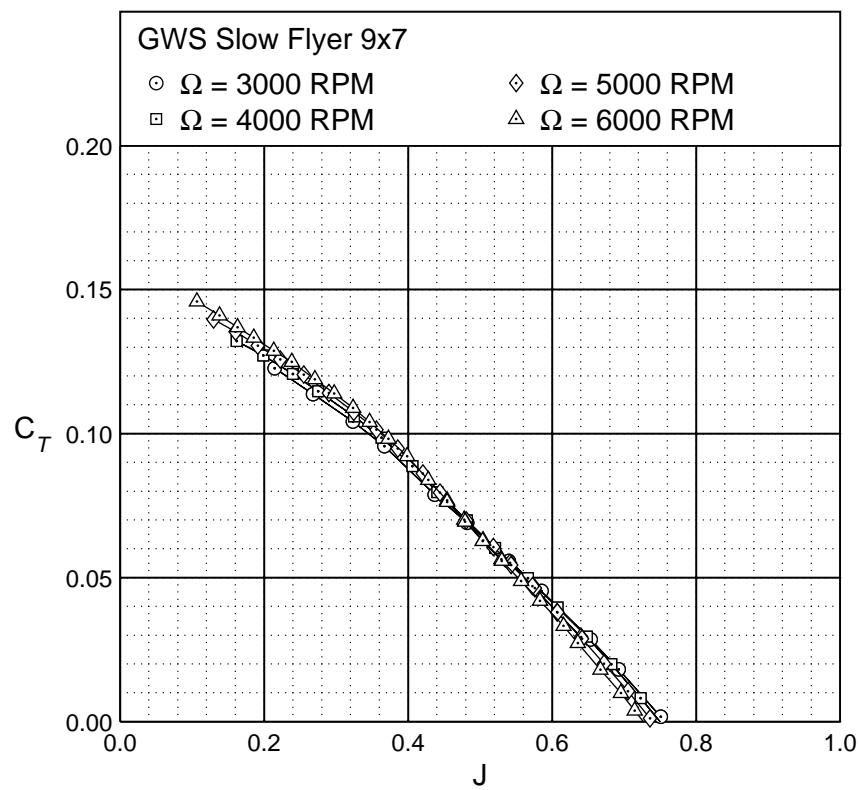


Figure 5.309: GWS Slow Flyer 9×7 thrust characteristics.

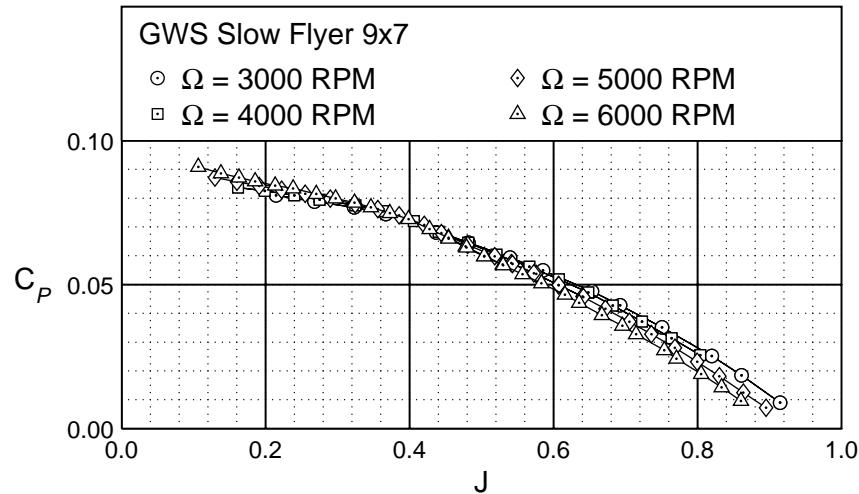


Figure 5.310: GWS Slow Flyer 9×7 power characteristics.

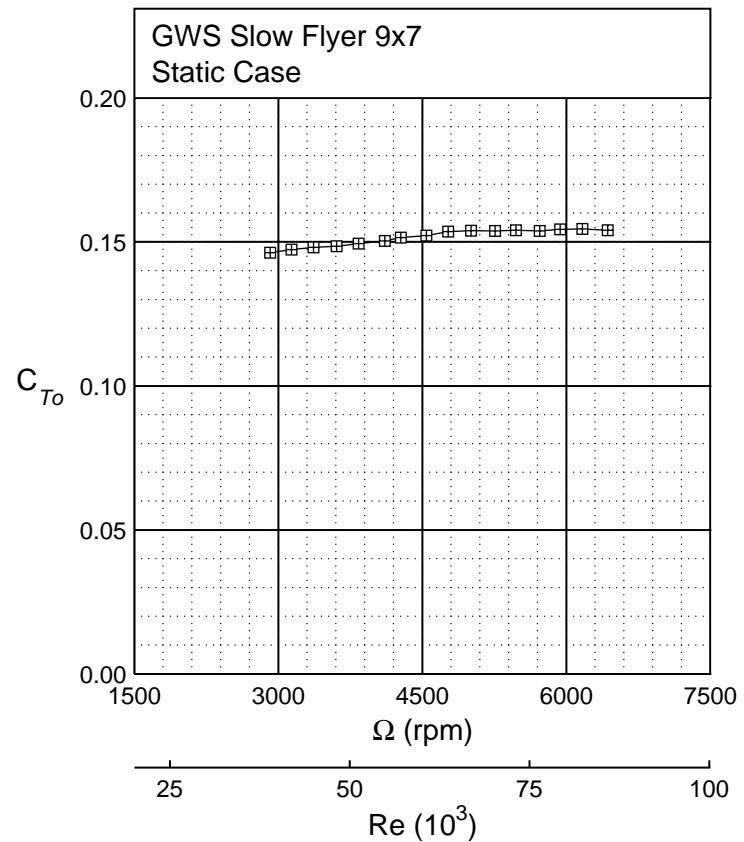


Figure 5.311: GWS Slow Flyer 9×7 static thrust.

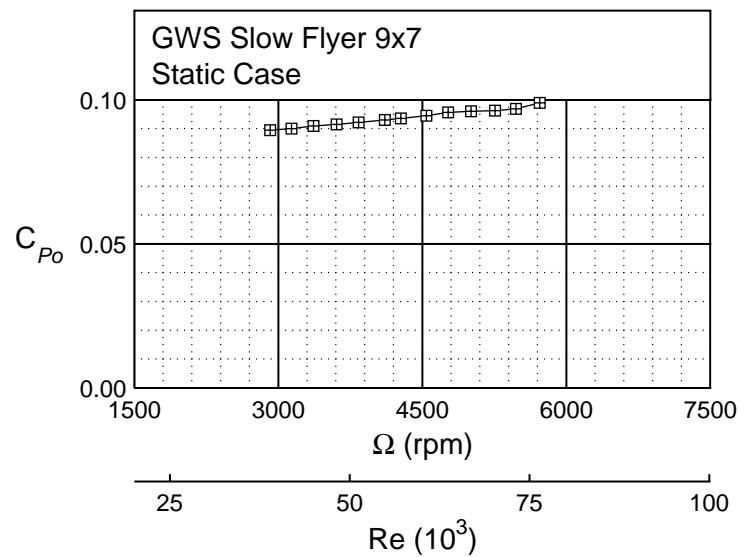
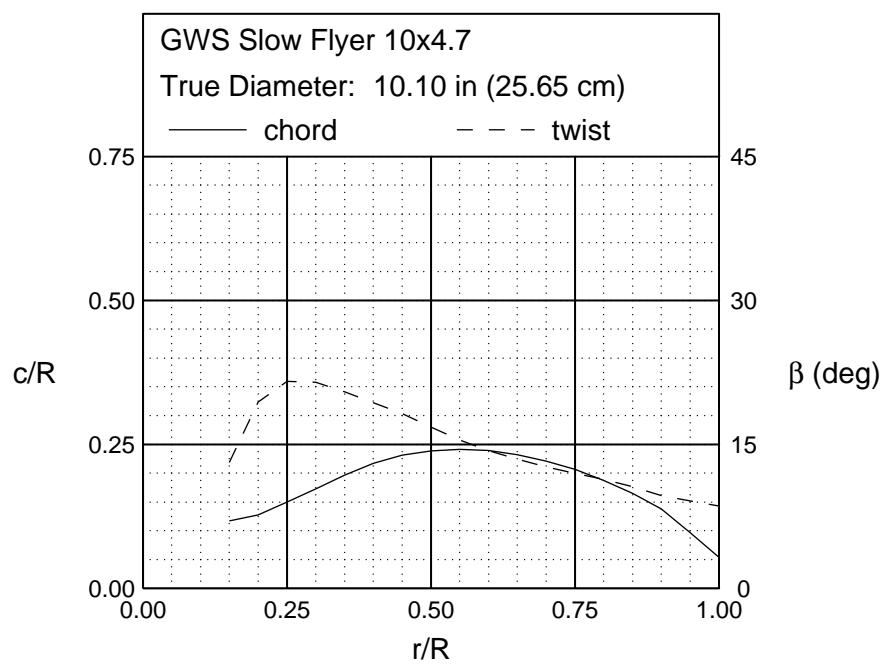


Figure 5.312: GWS Slow Flyer 9×7 static power.



Front View



Side View

Figure 5.313: GWS Slow Flyer 10×4.7 geometric characteristics.

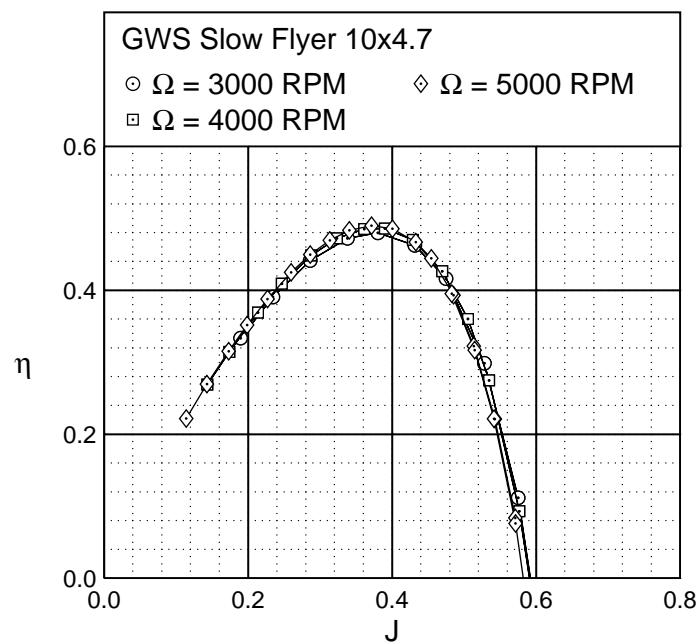


Figure 5.314: GWS Slow Flyer 10×4.7 efficiency curves.

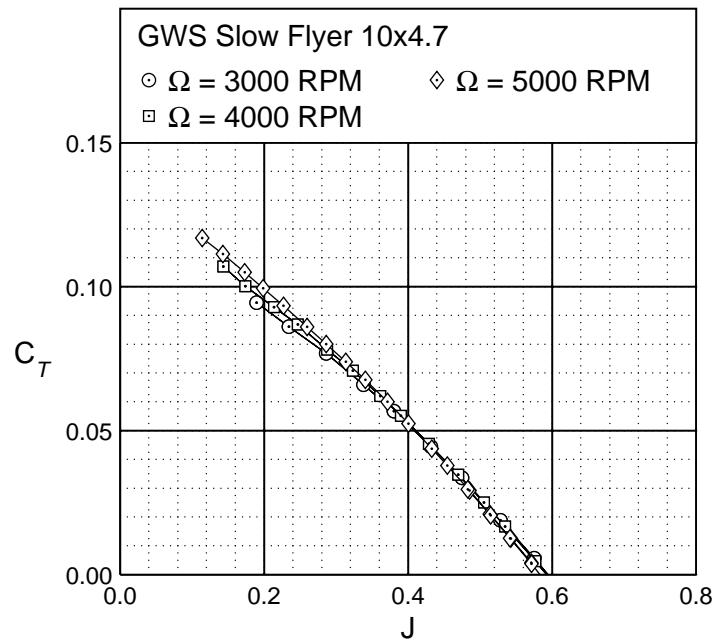


Figure 5.315: GWS Slow Flyer 10×4.7 thrust characteristics.

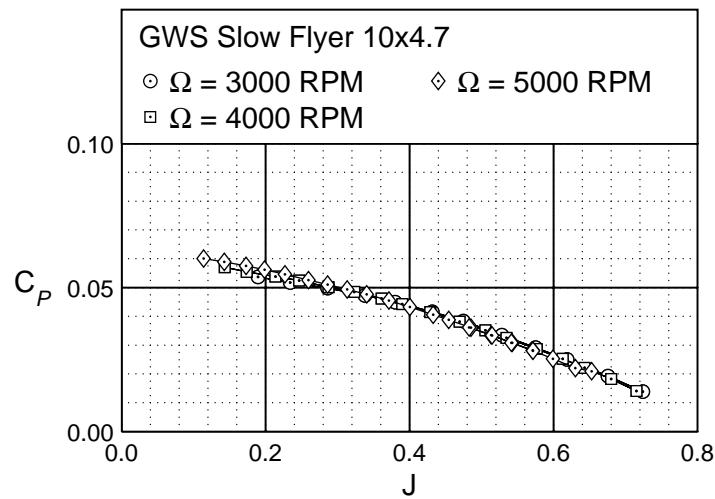


Figure 5.316: GWS Slow Flyer 10×4.7 power characteristics.

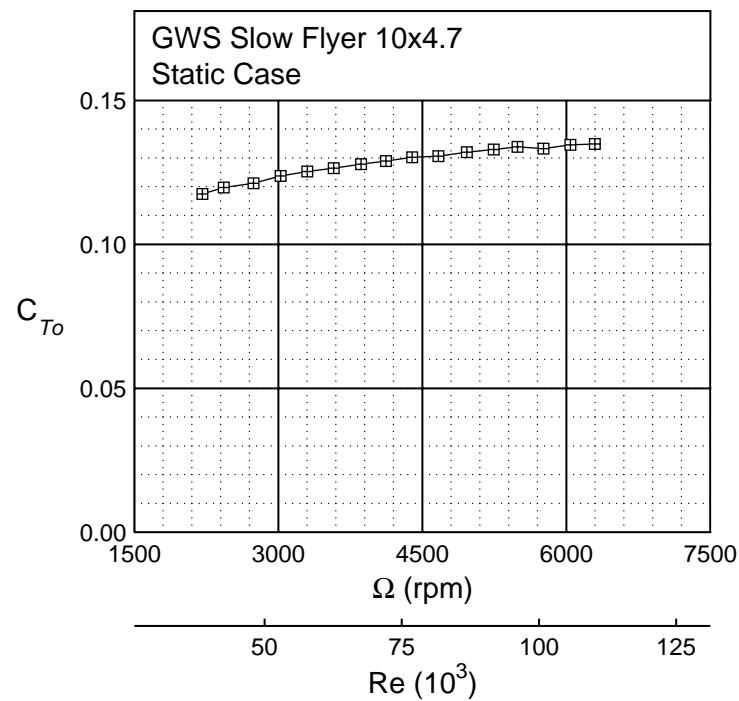


Figure 5.317: GWS Slow Flyer 10×4.7 static thrust.

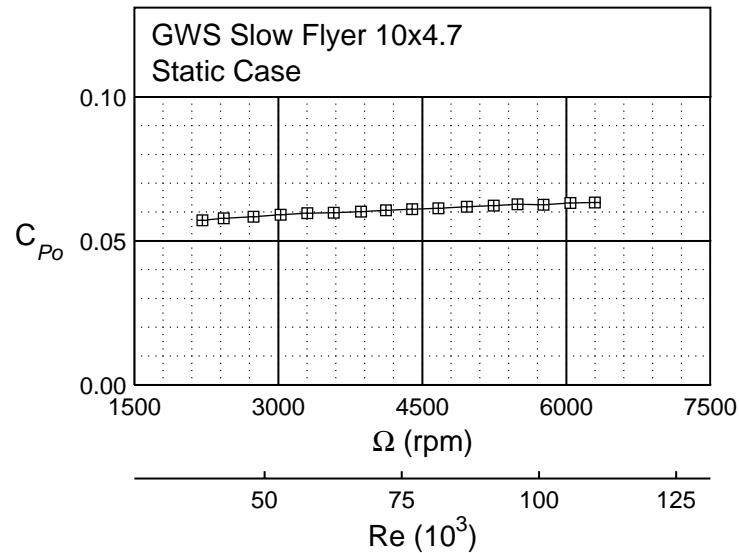
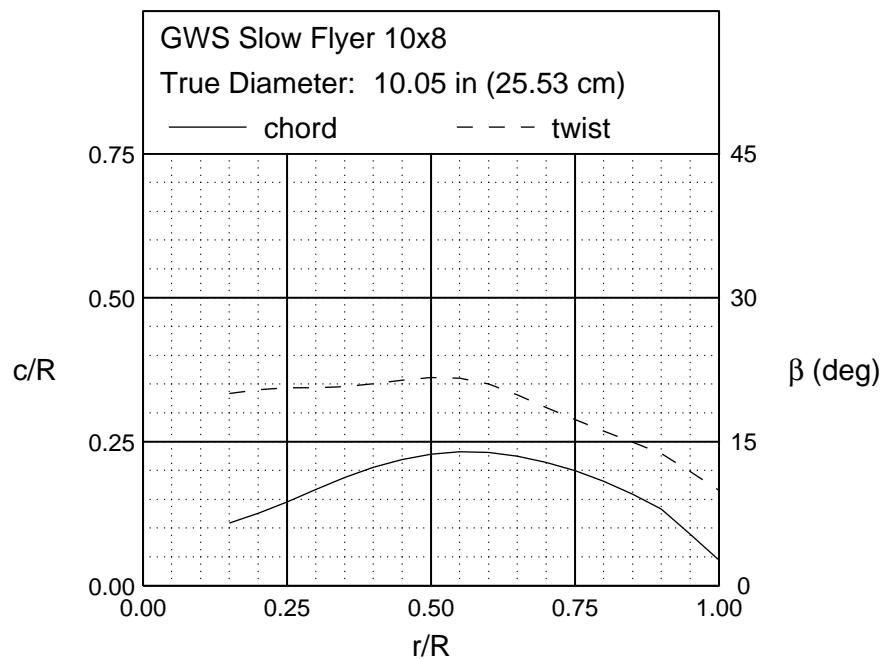


Figure 5.318: GWS Slow Flyer 10×4.7 static power.



Front View



Side View

Figure 5.319: GWS Slow Flyer 10×8 geometric characteristics.

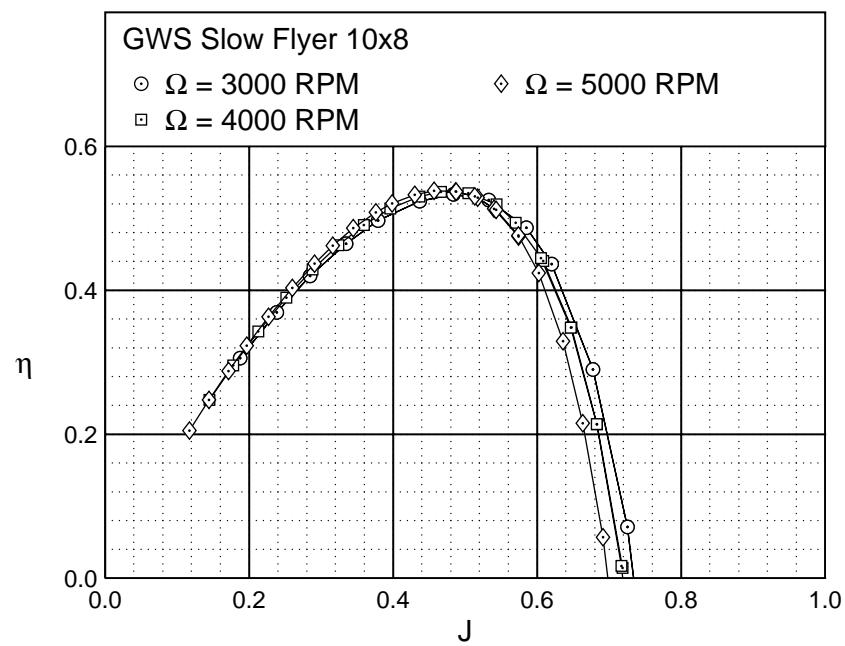


Figure 5.320: GWS Slow Flyer 10×8 efficiency curves.

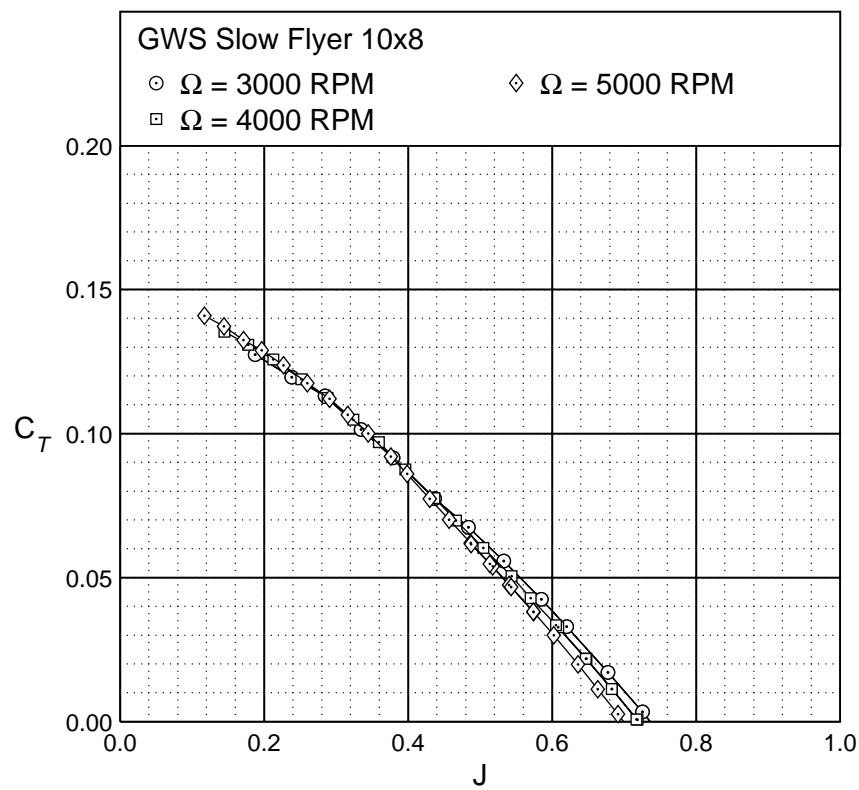


Figure 5.321: GWS Slow Flyer 10×8 thrust characteristics.

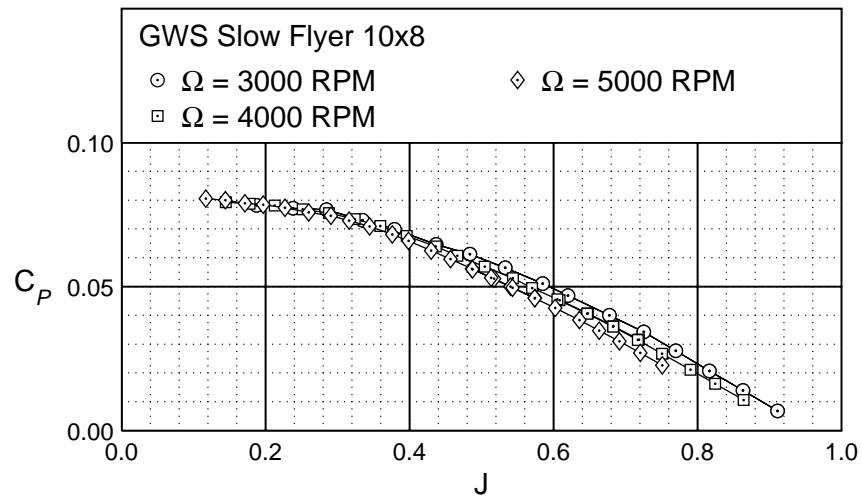
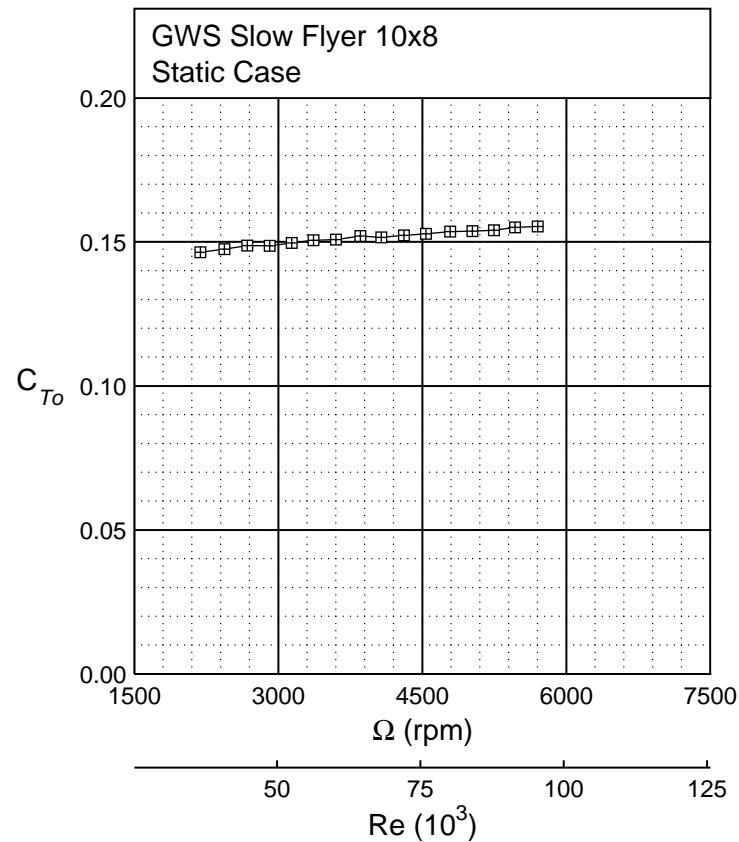
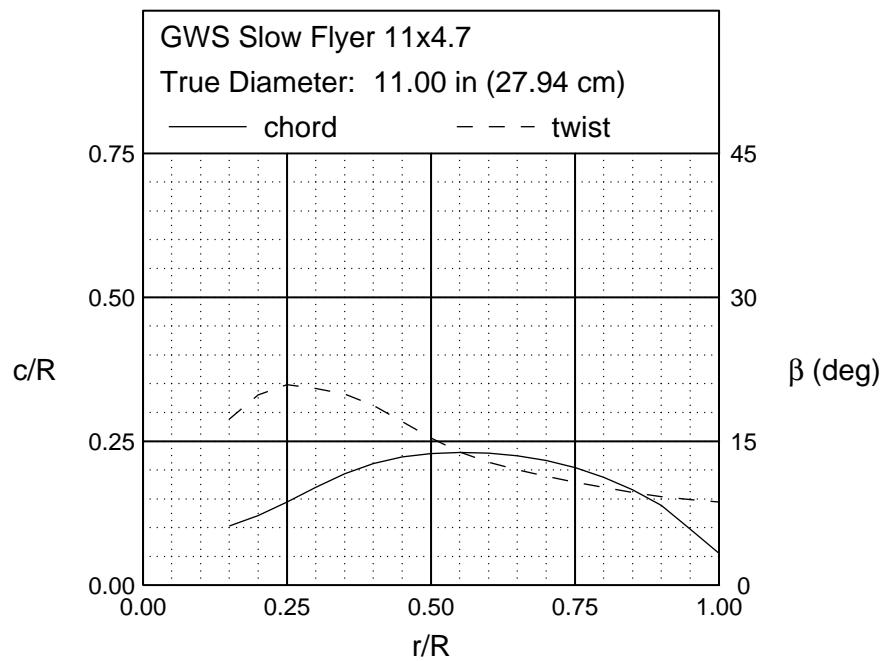


Figure 5.322: GWS Slow Flyer 10×8 power characteristics.





Front View



Side View

Figure 5.325: GWS Slow Flyer 11×4.7 geometric characteristics.

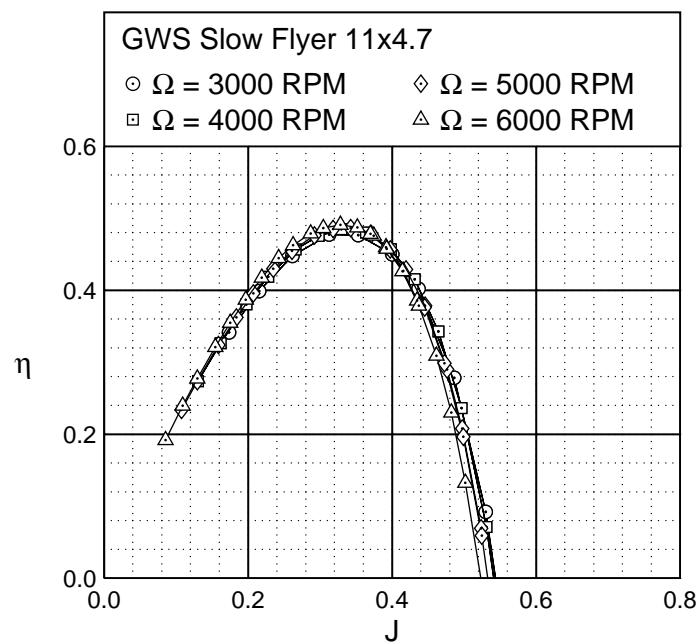


Figure 5.326: GWS Slow Flyer 11×4.7 efficiency curves.

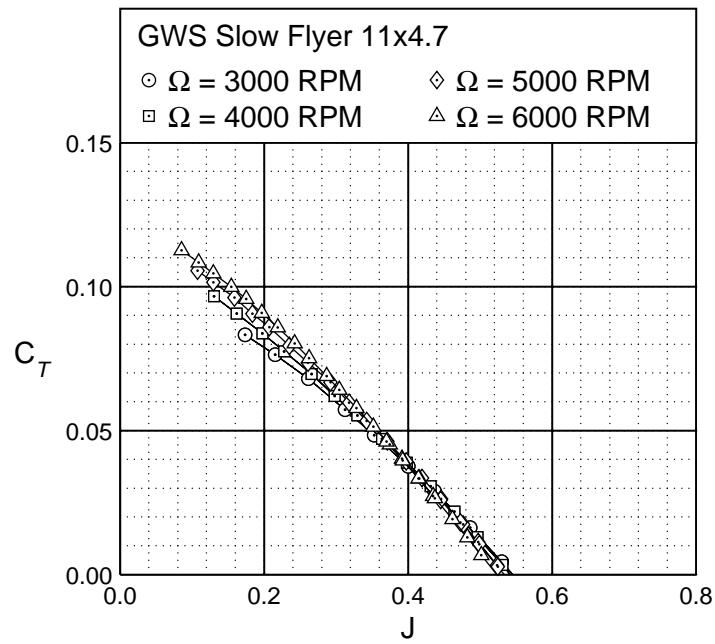


Figure 5.327: GWS Slow Flyer 11×4.7 thrust characteristics.

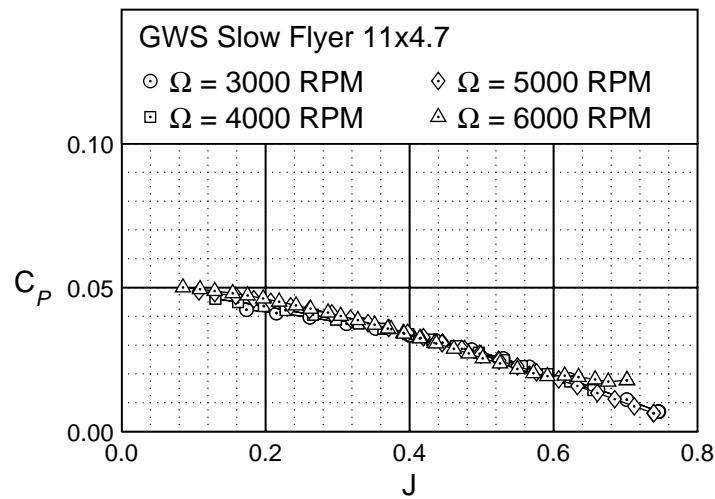


Figure 5.328: GWS Slow Flyer 11×4.7 power characteristics.

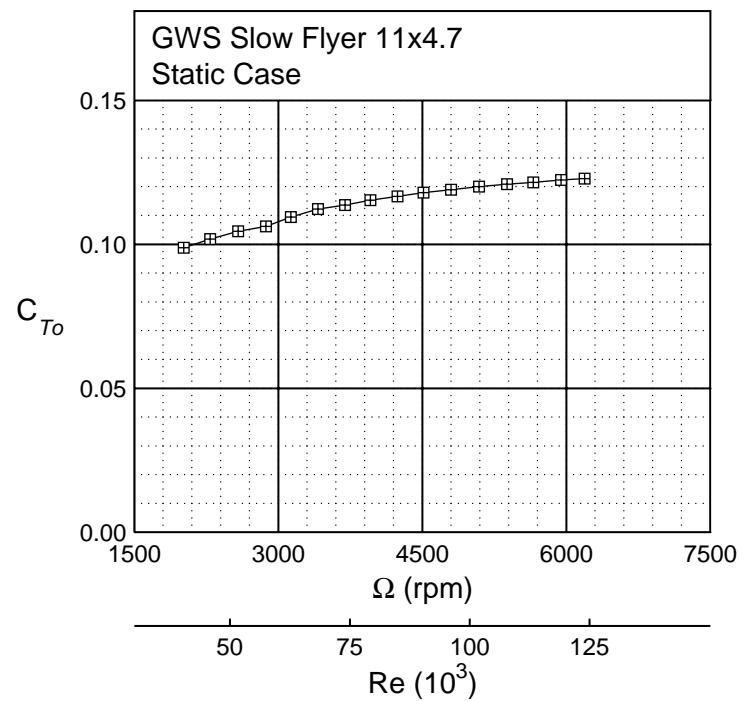


Figure 5.329: GWS Slow Flyer 11×4.7 static thrust.

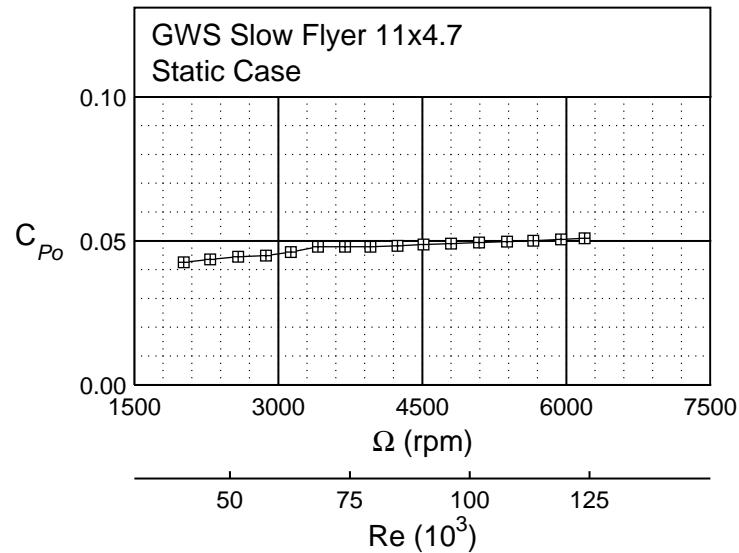
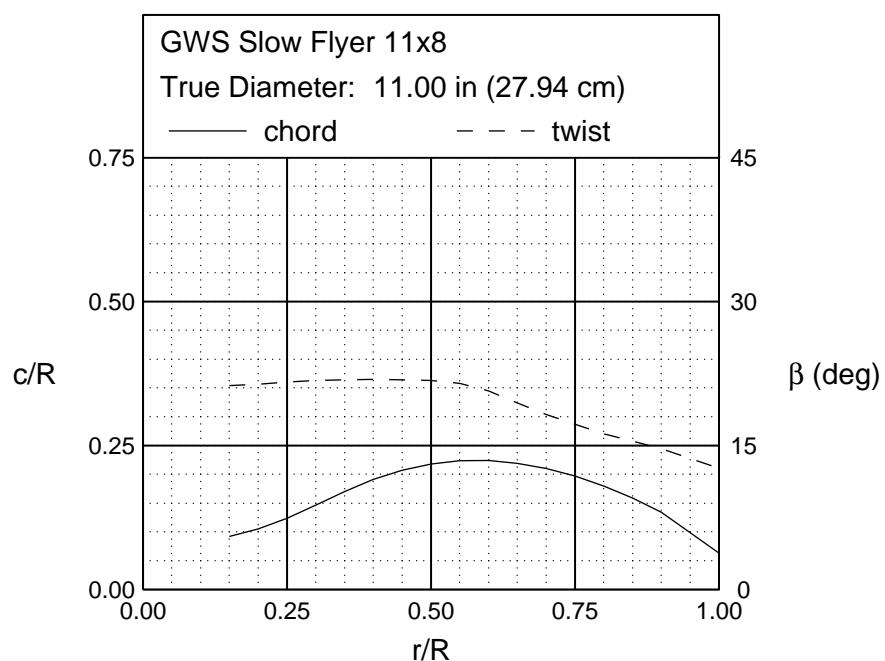


Figure 5.330: GWS Slow Flyer 11×4.7 static power.



Front View



Side View

Figure 5.331: GWS Slow Flyer 11×8 geometric characteristics.

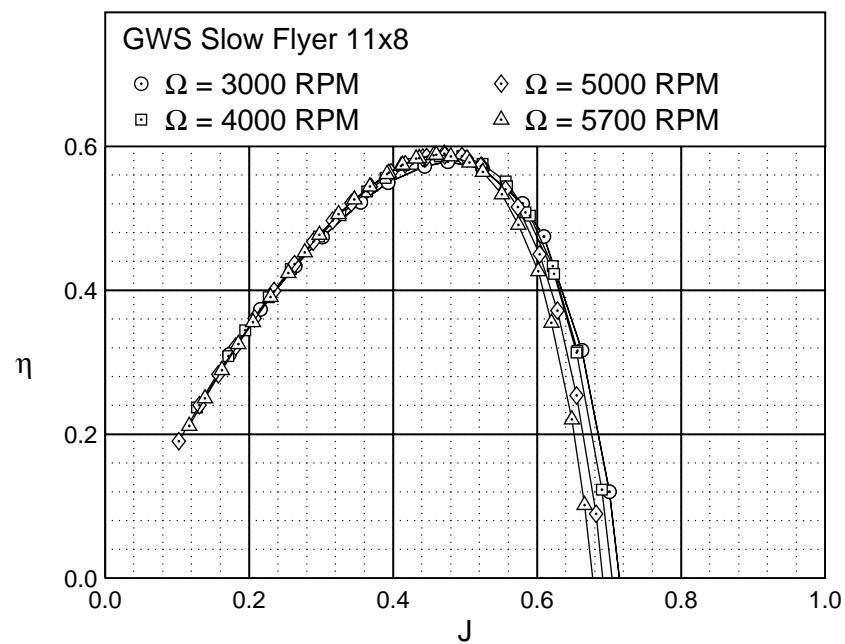


Figure 5.332: GWS Slow Flyer 11×8 efficiency curves.

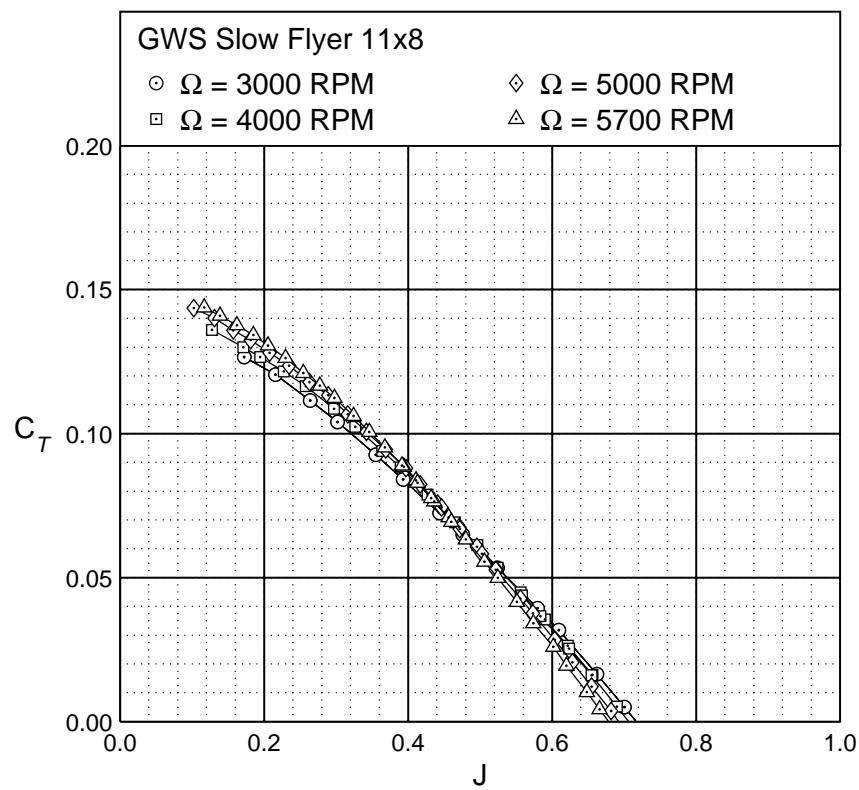


Figure 5.333: GWS Slow Flyer 11×8 thrust characteristics.

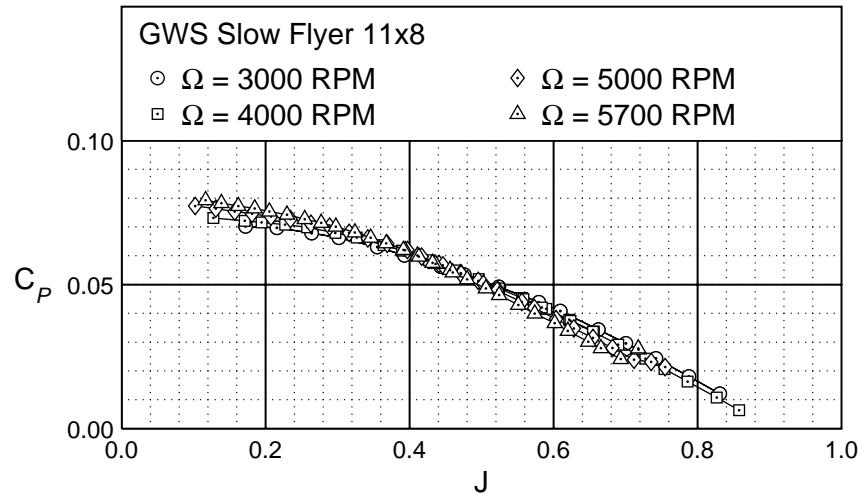


Figure 5.334: GWS Slow Flyer 11×8 power characteristics.

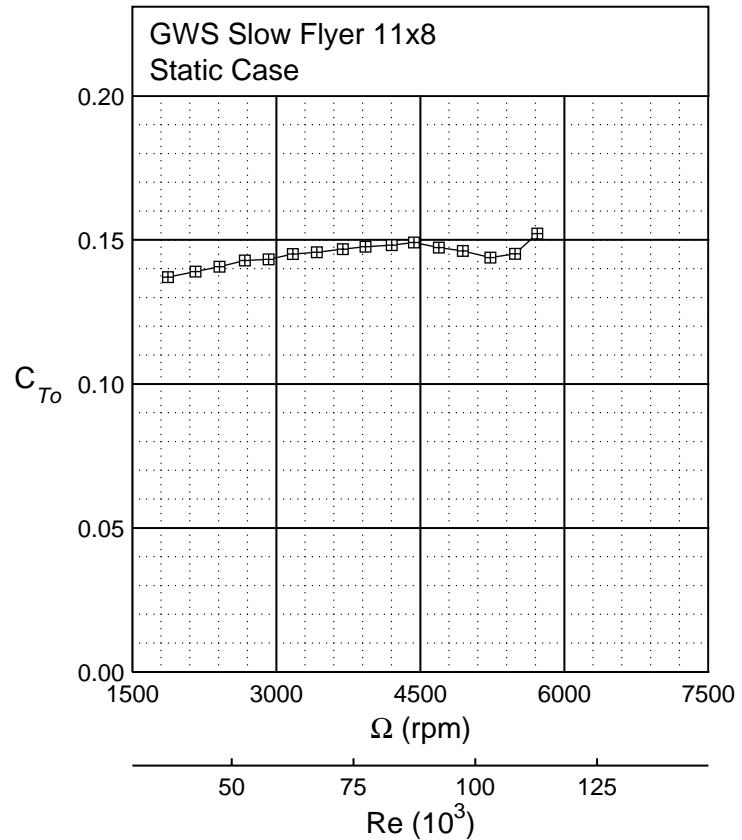


Figure 5.335: GWS Slow Flyer 11×8 static thrust.

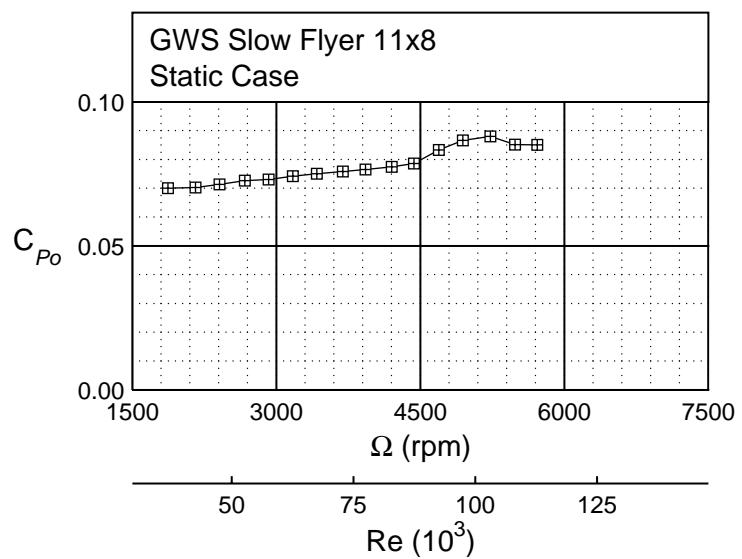
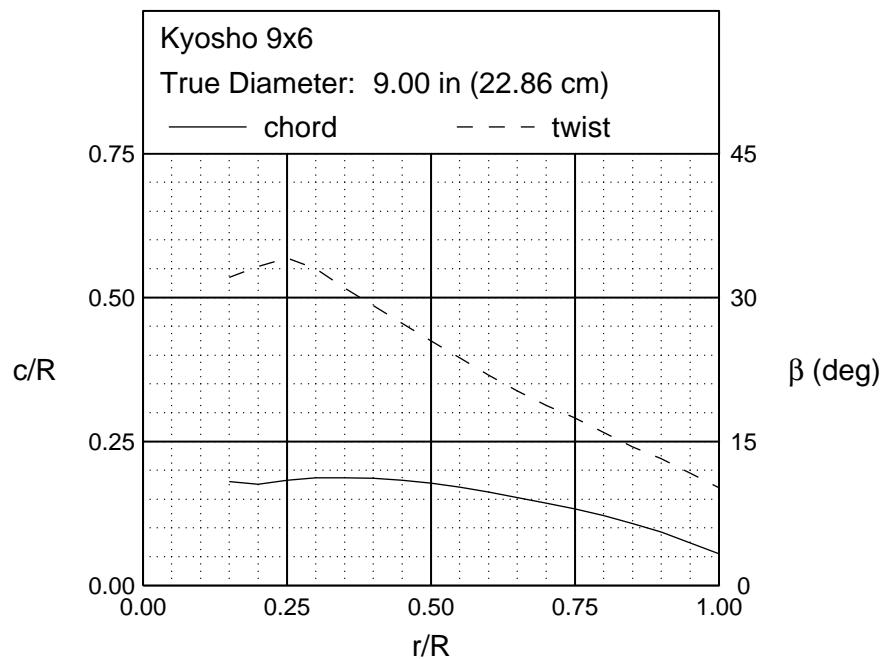


Figure 5.336: GWS Slow Flyer 11×8 static power.



Front View



Side View

Figure 5.337: Kyosho 9×6 geometric characteristics.

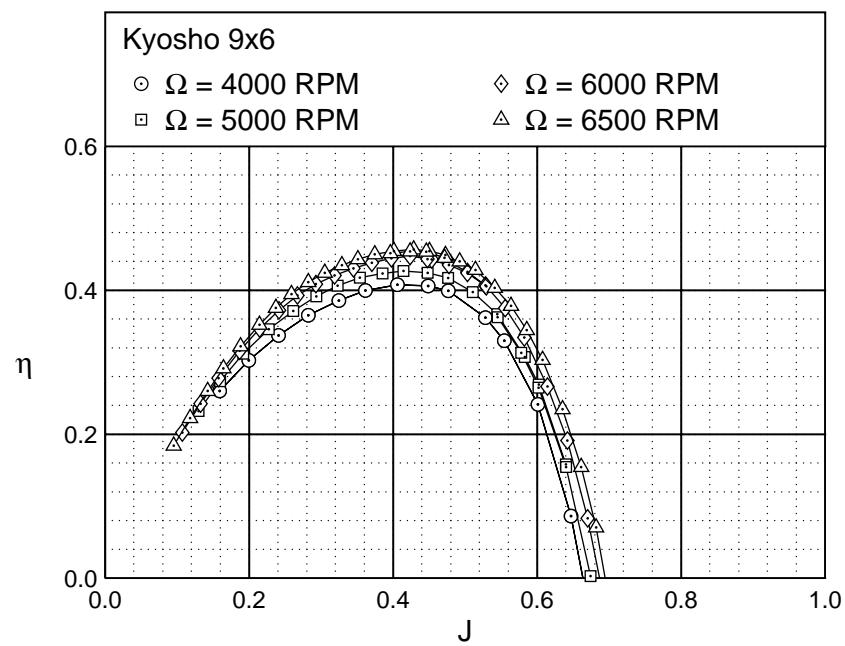


Figure 5.338: Kyosho 9×6 efficiency curves.

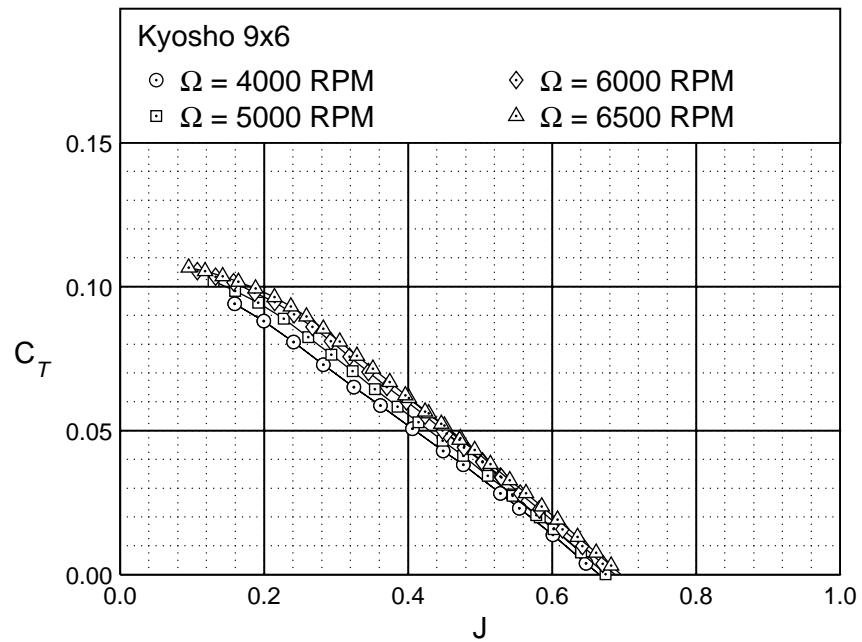


Figure 5.339: Kyosho 9×6 thrust characteristics.

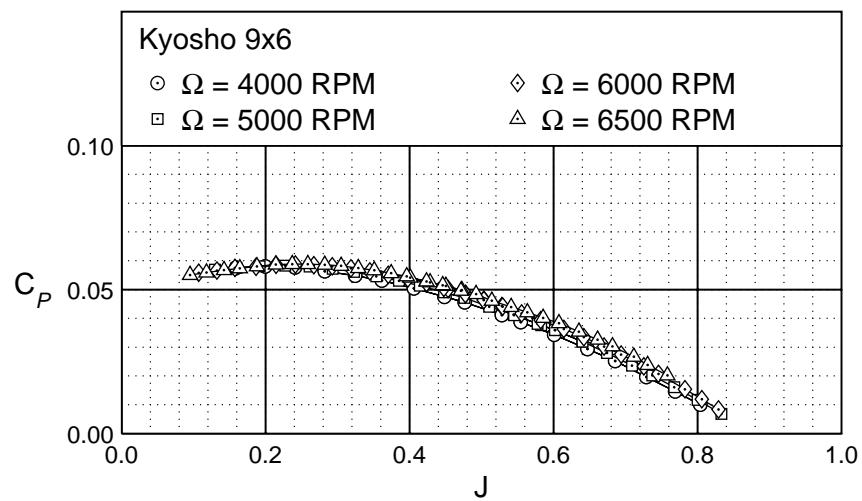


Figure 5.340: Kyosho 9×6 power characteristics.

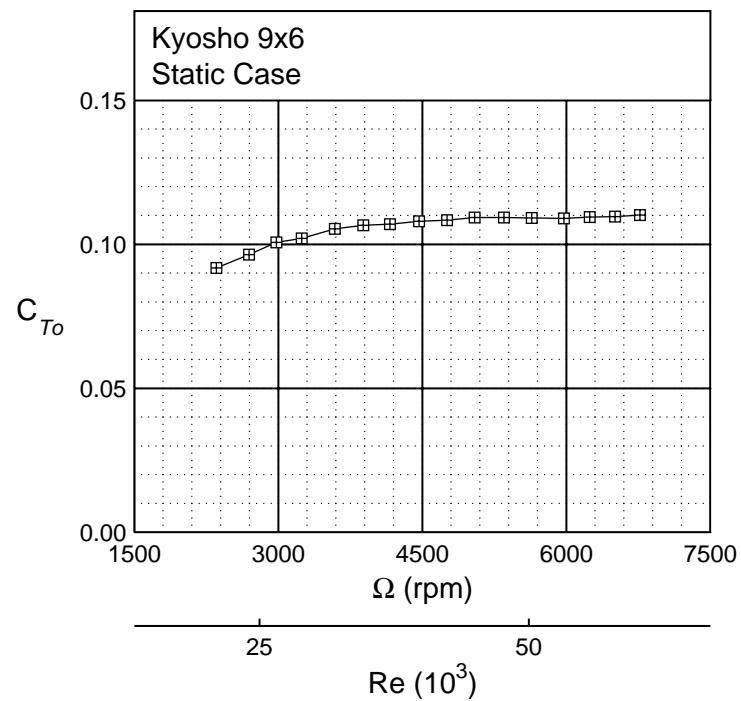


Figure 5.341: Kyosho 9×6 static thrust.

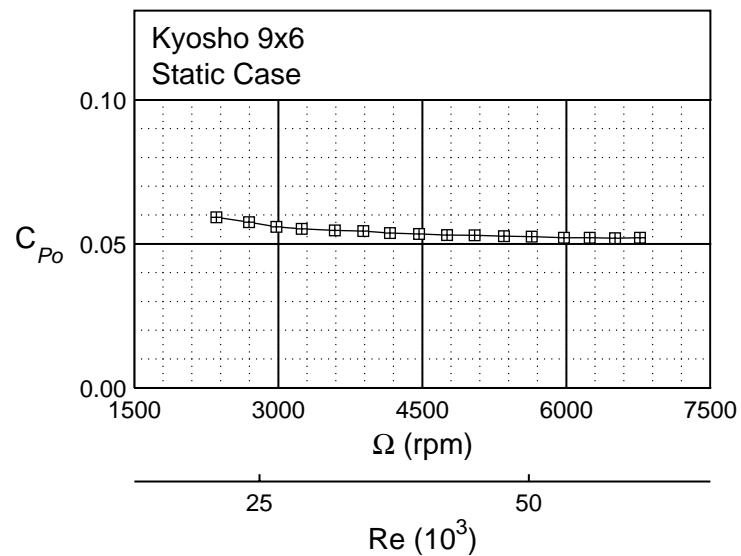
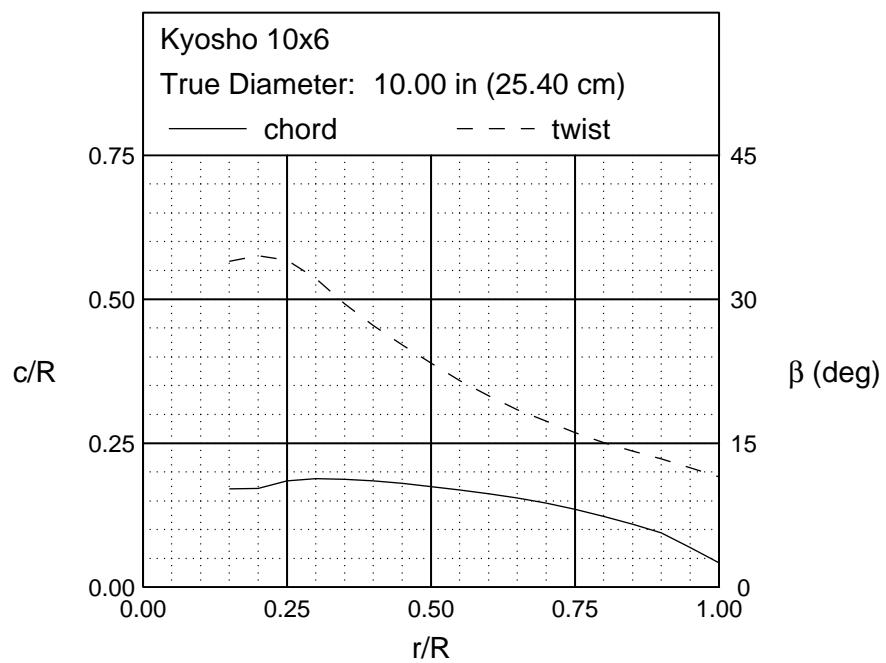


Figure 5.342: Kyosho 9×6 static power.



Front View



Side View

Figure 5.343: Kyosho 10×6 geometric characteristics.

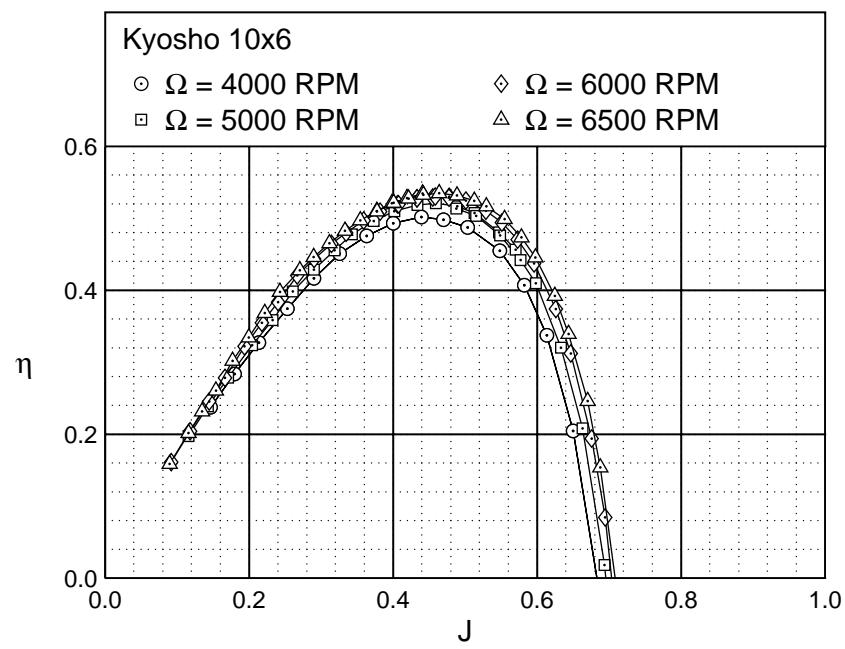


Figure 5.344: Kyosho 10×6 efficiency curves.

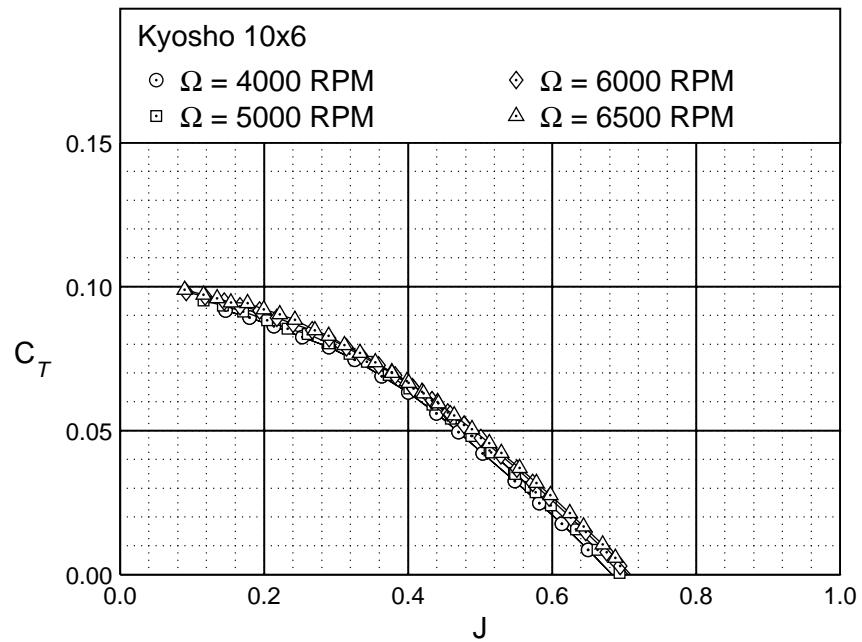


Figure 5.345: Kyosho 10×6 thrust characteristics.

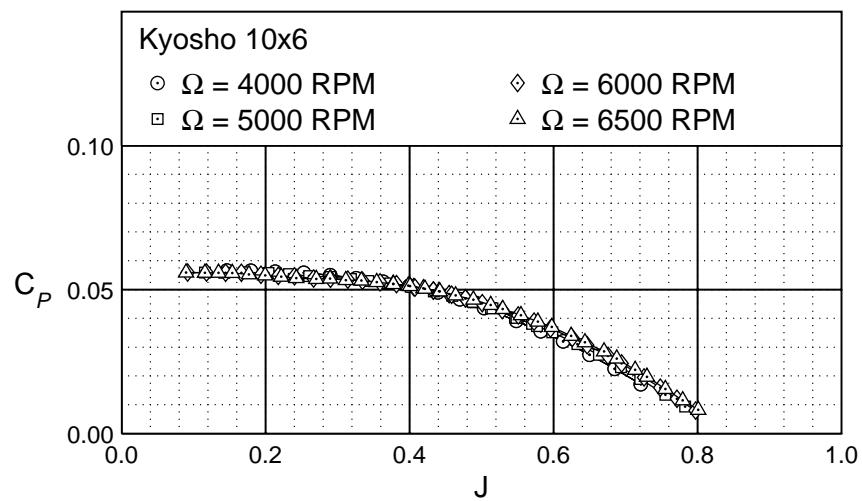


Figure 5.346: Kyosho 10×6 power characteristics.

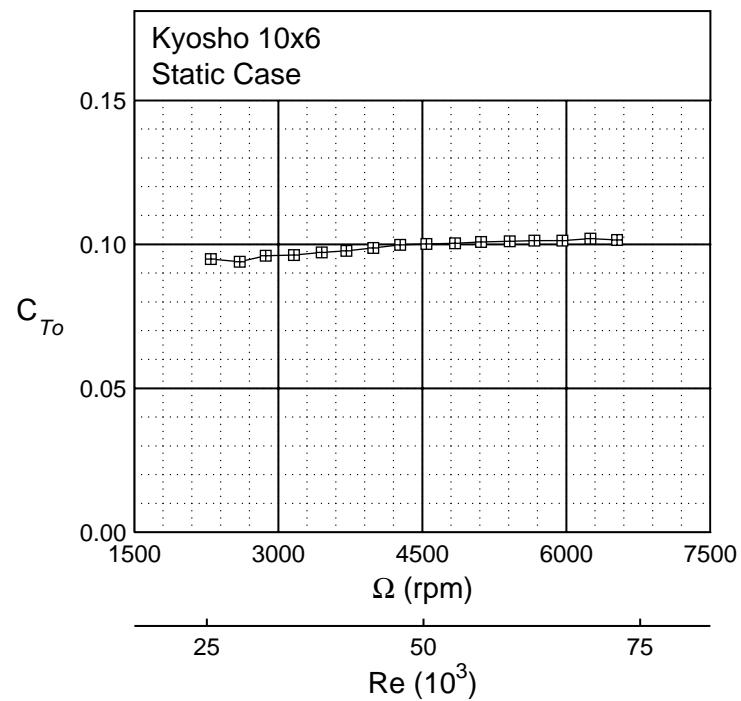


Figure 5.347: Kyosho 10×6 static thrust.

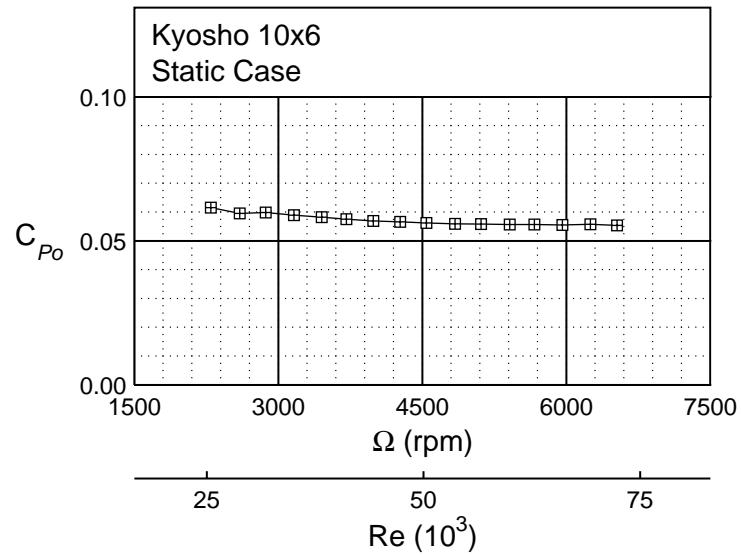
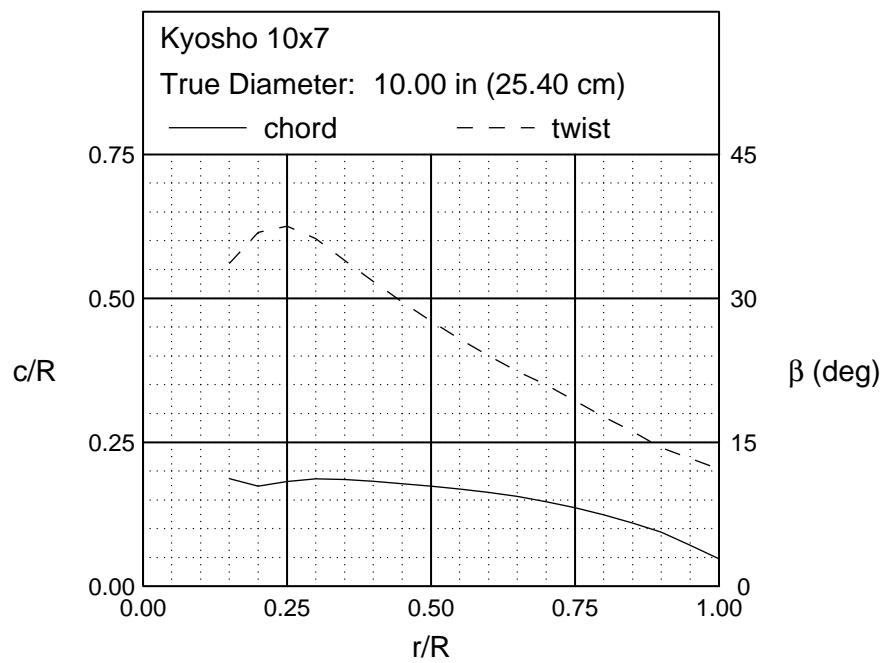


Figure 5.348: Kyosho 10×6 static power.



Front View



Side View

Figure 5.349: Kyosho 10×7 geometric characteristics.

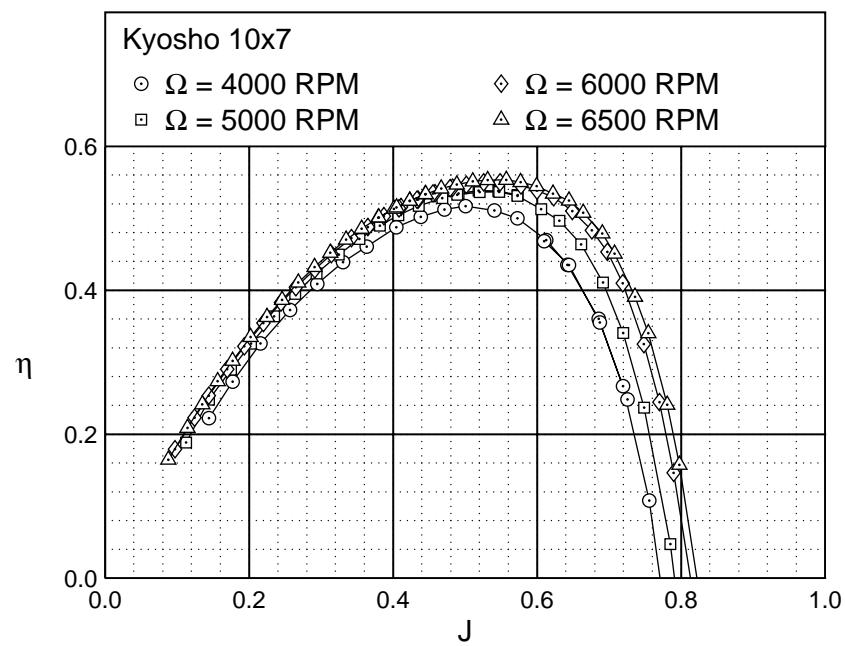


Figure 5.350: Kyosho 10×7 efficiency curves.

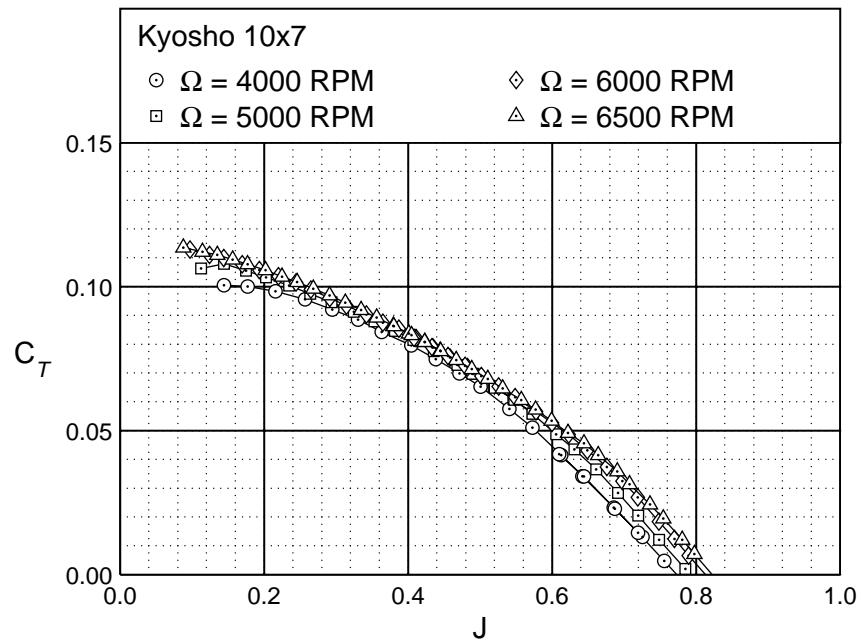


Figure 5.351: Kyosho 10×7 thrust characteristics.

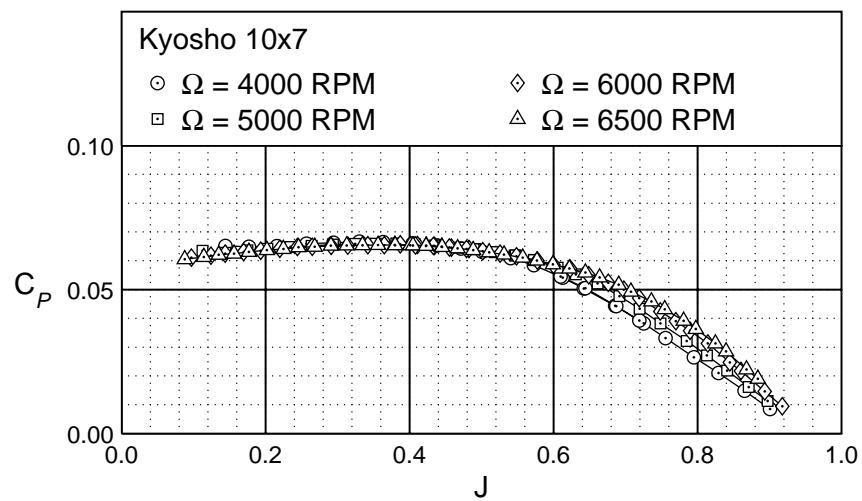


Figure 5.352: Kyosho 10×7 power characteristics.

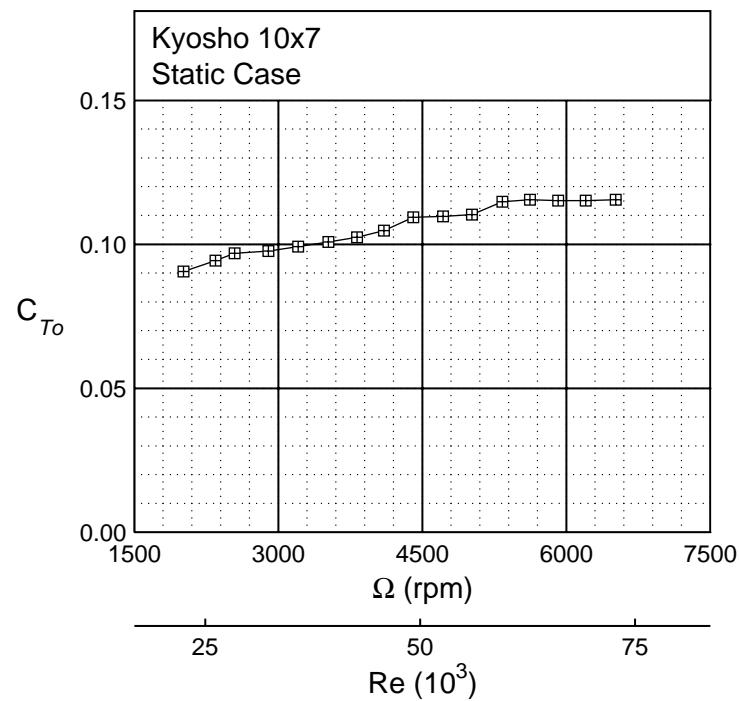


Figure 5.353: Kyosho 10×7 static thrust.

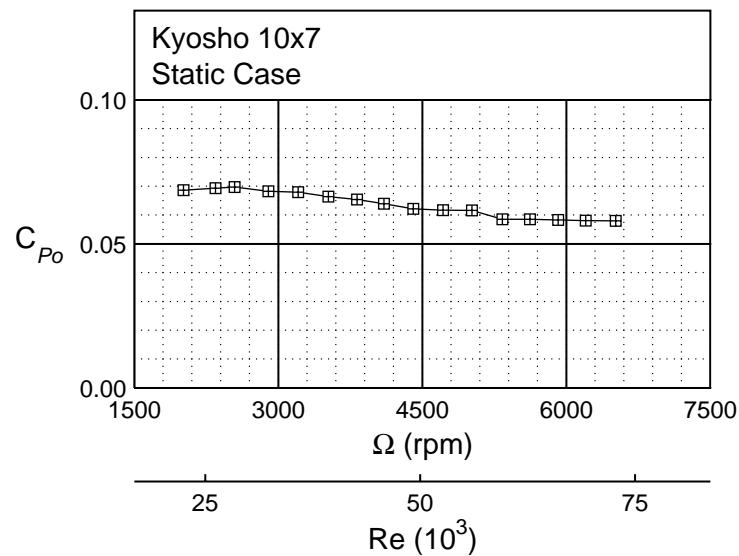
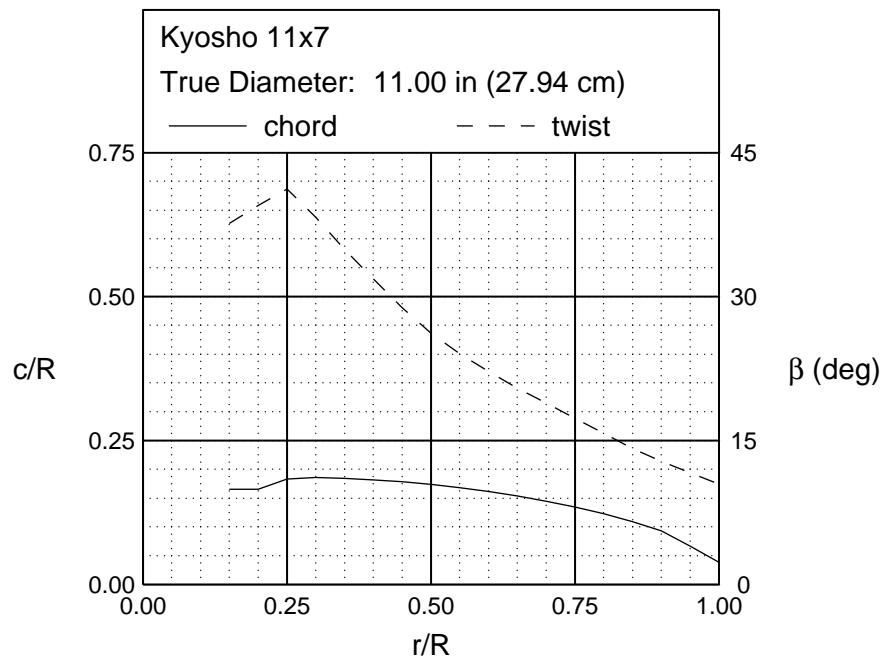


Figure 5.354: Kyosho 10×7 static power.



Front View



Side View

Figure 5.355: Kyosho 11×7 geometric characteristics.

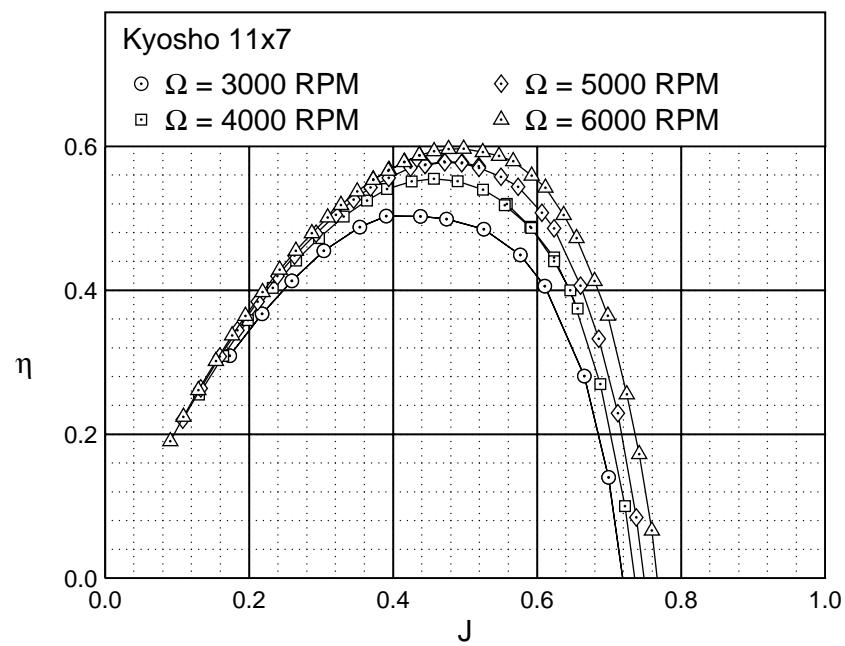


Figure 5.356: Kyosho 11×7 efficiency curves.

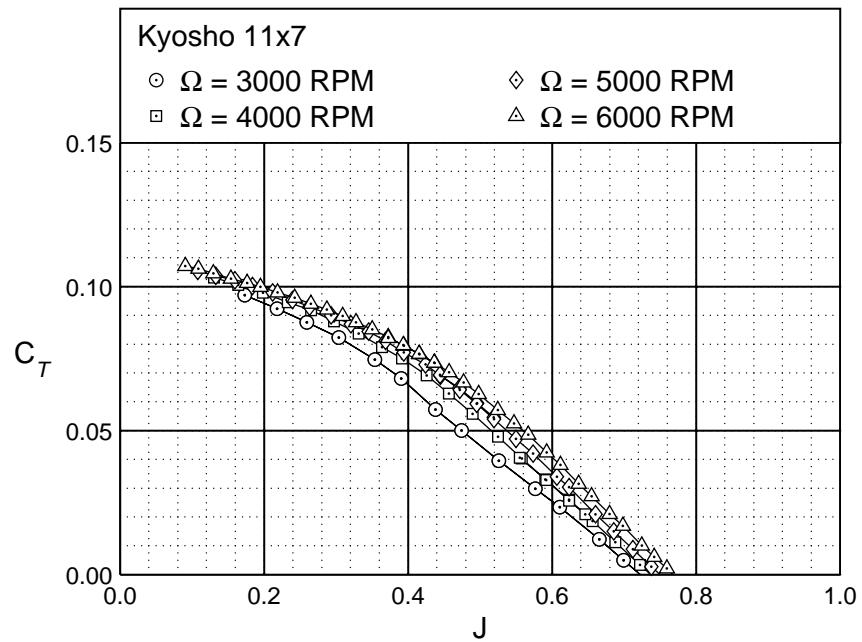


Figure 5.357: Kyosho 11×7 thrust characteristics.

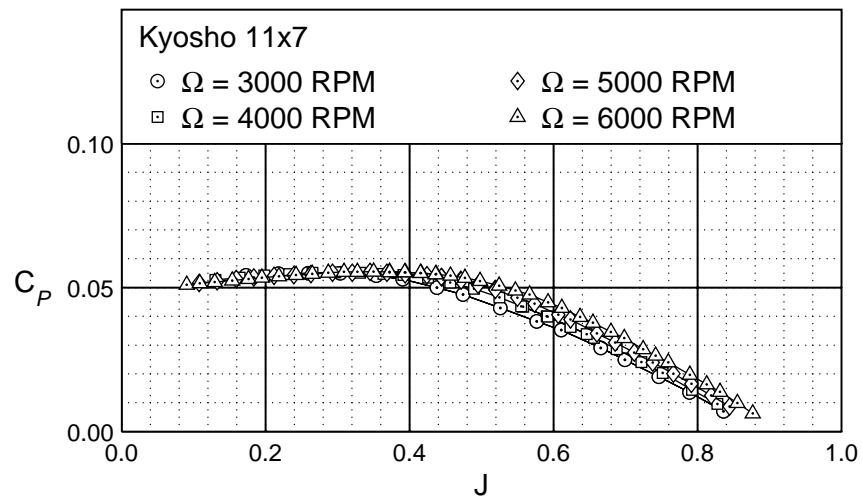


Figure 5.358: Kyosho 11×7 power characteristics.

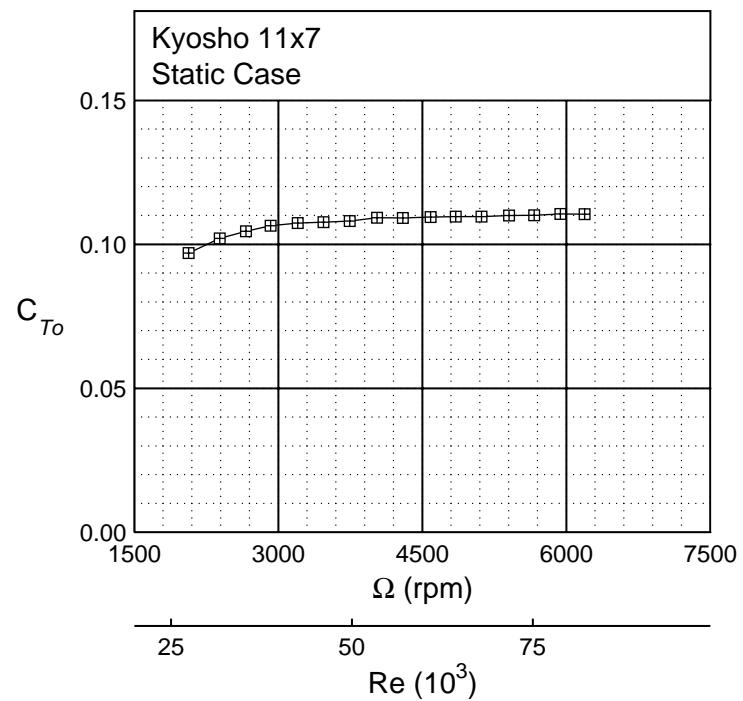


Figure 5.359: Kyosho 11×7 static thrust.

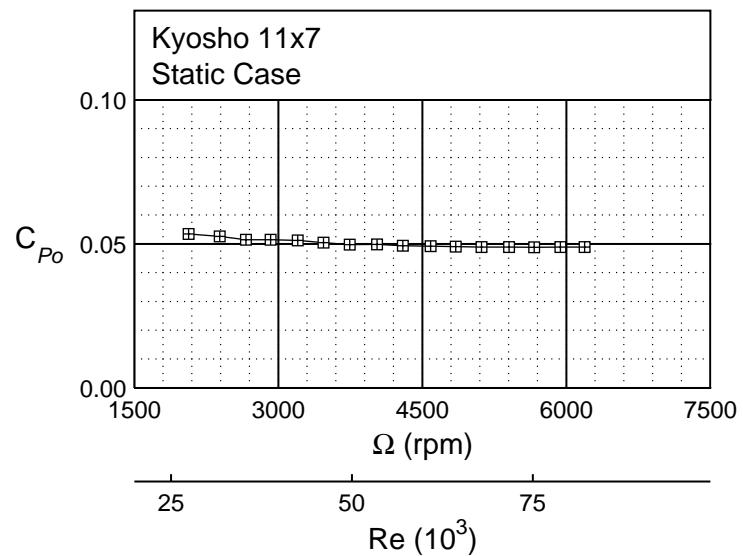
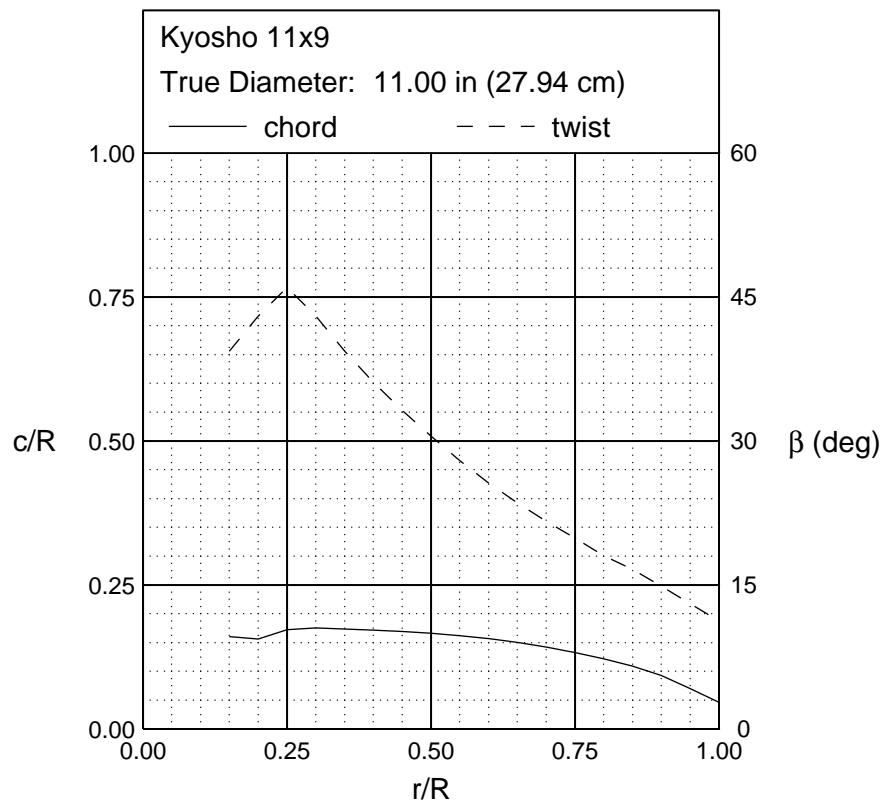


Figure 5.360: Kyosho 11×7 static power.



Front View



Side View

Figure 5.361: Kyosho 11×9 geometric characteristics.

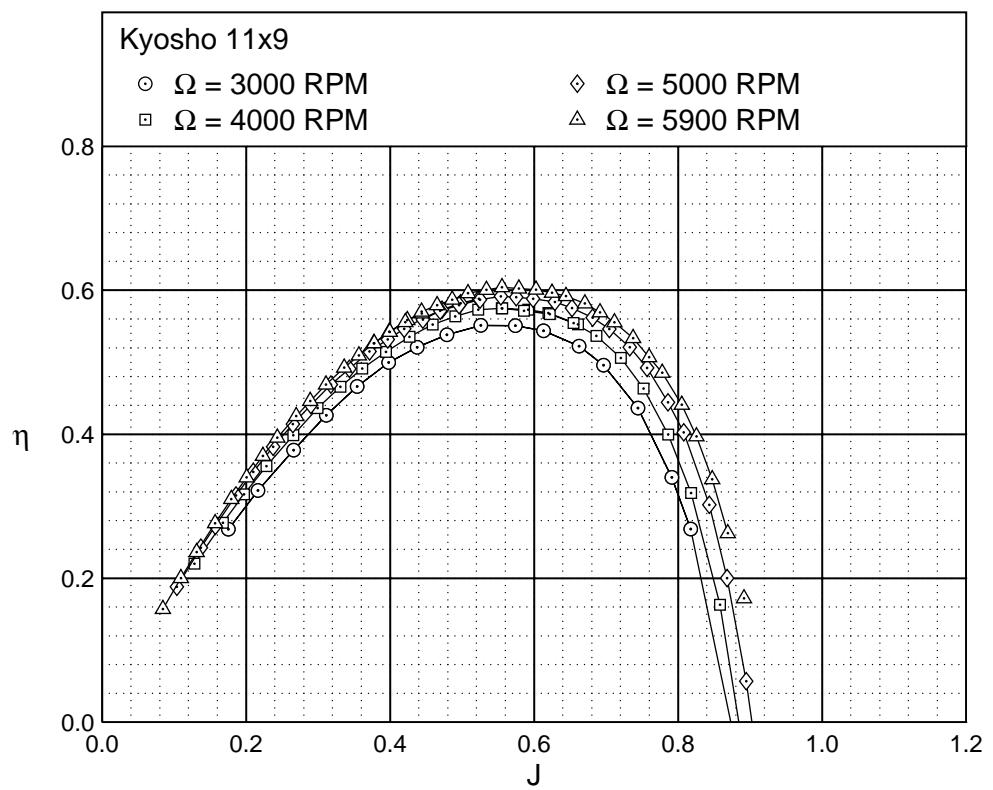


Figure 5.362: Kyosho 11×9 efficiency curves.

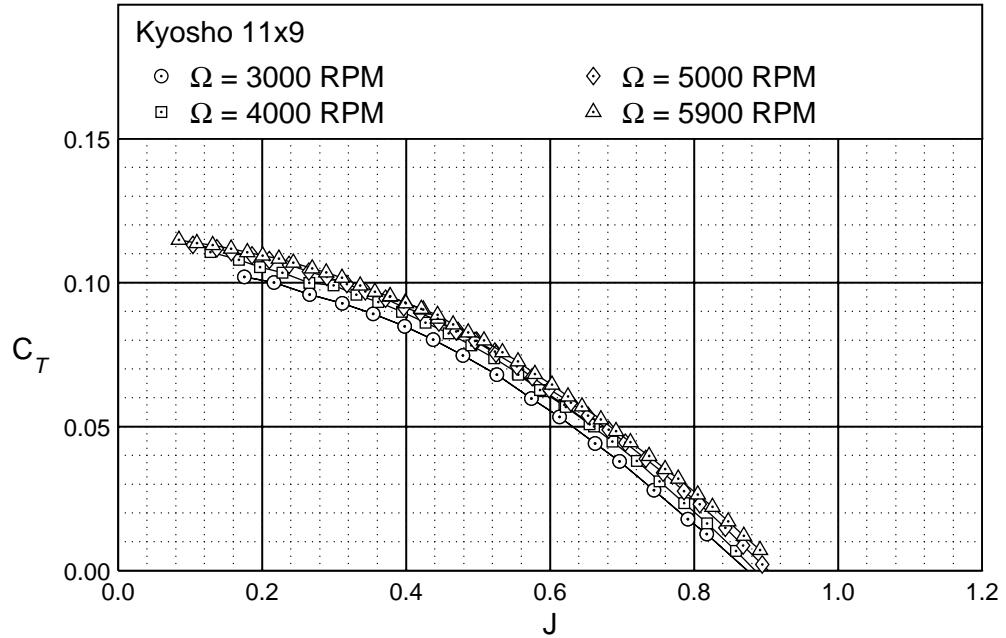


Figure 5.363: Kyosho 11×9 thrust characteristics.

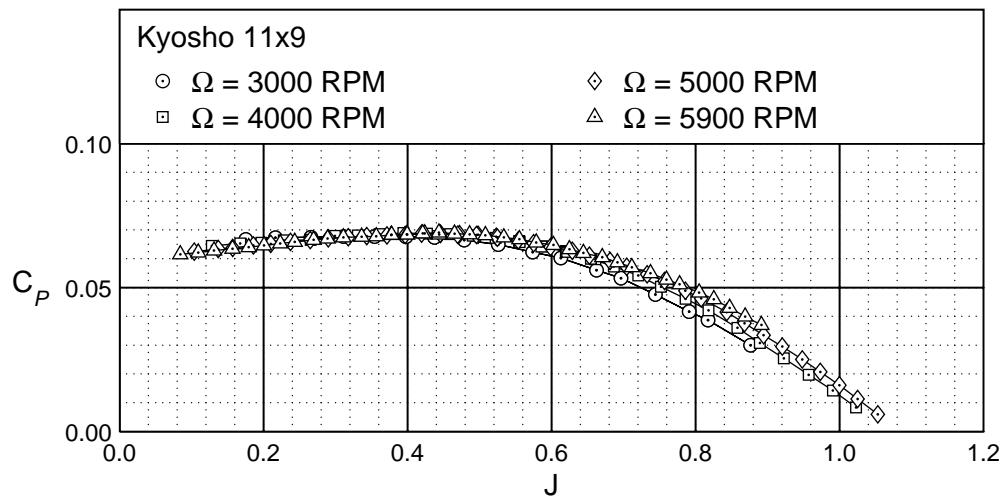


Figure 5.364: Kyosho 11×9 power characteristics.

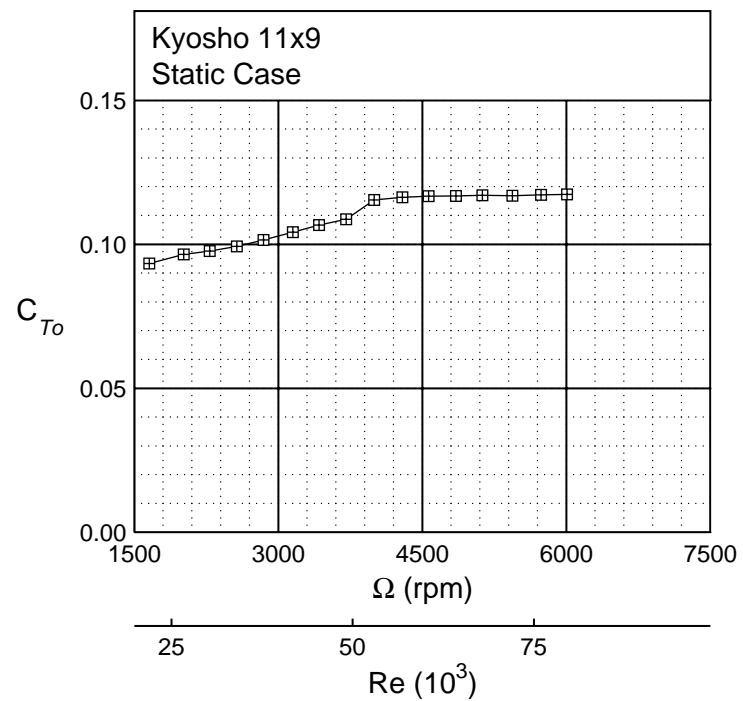


Figure 5.365: Kyosho 11×9 static thrust.

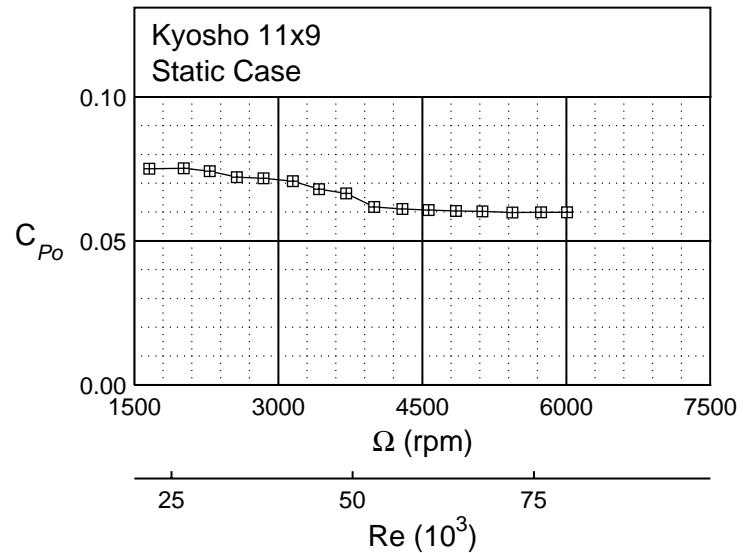
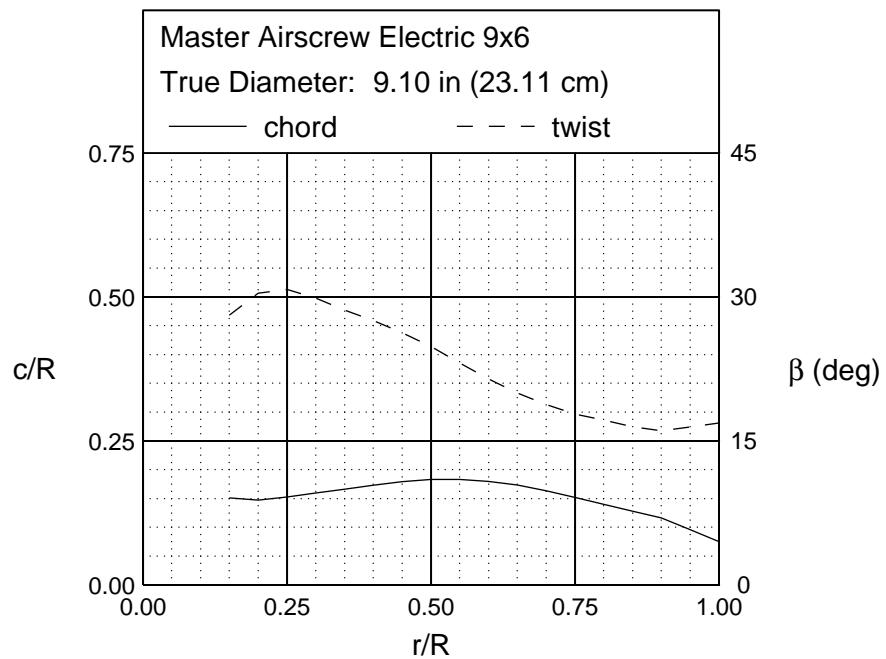


Figure 5.366: Kyosho 11×9 static power.



Front View



Side View

Figure 5.367: Master Airscrew Electric 9×6 geometric characteristics.

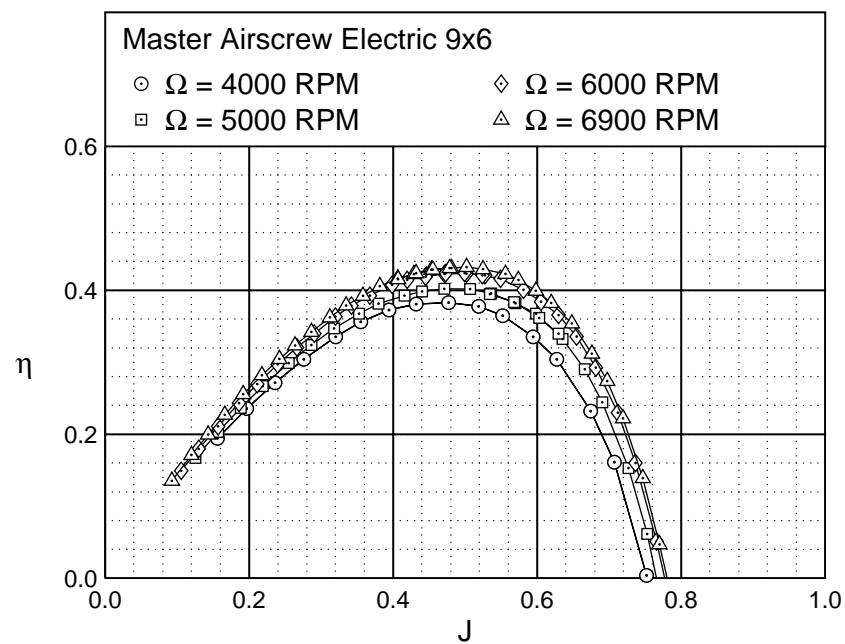


Figure 5.368: Master Airscrew Electric 9×6 efficiency curves.

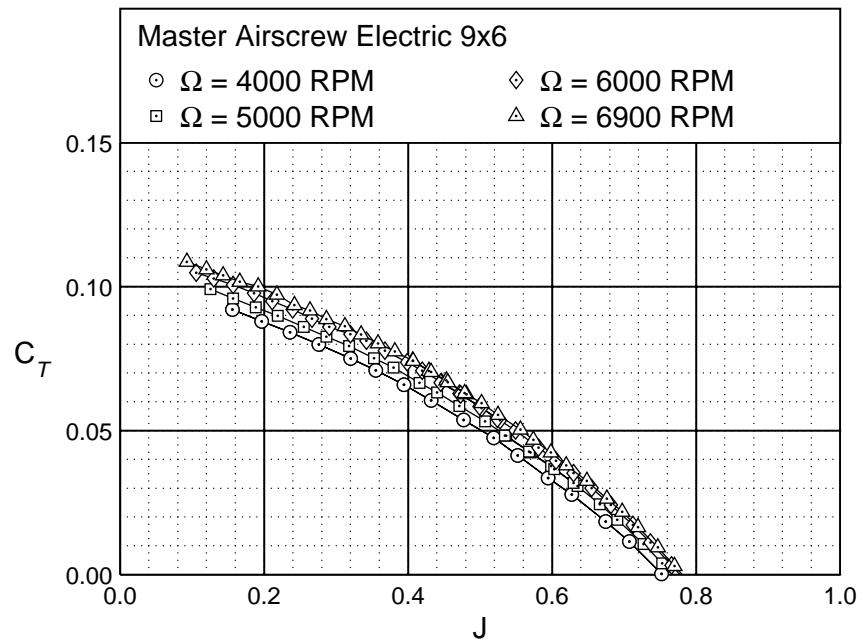


Figure 5.369: Master Airscrew Electric 9×6 thrust characteristics.

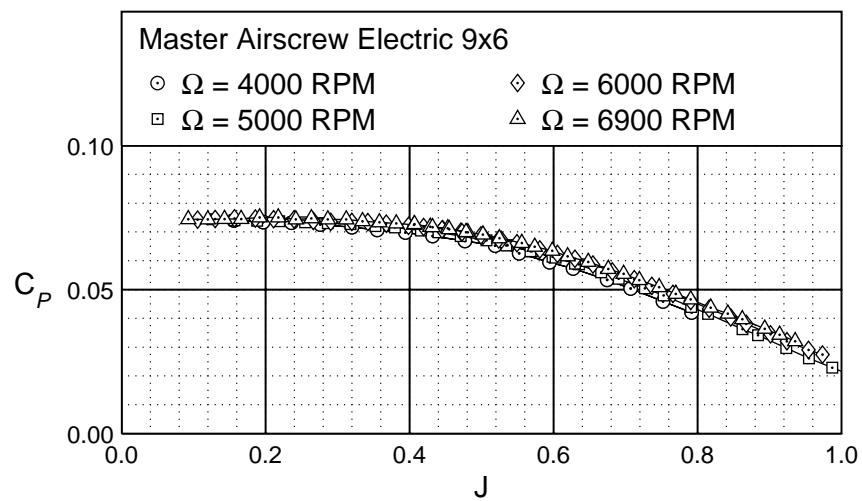


Figure 5.370: Master Airscrew Electric 9×6 power characteristics.

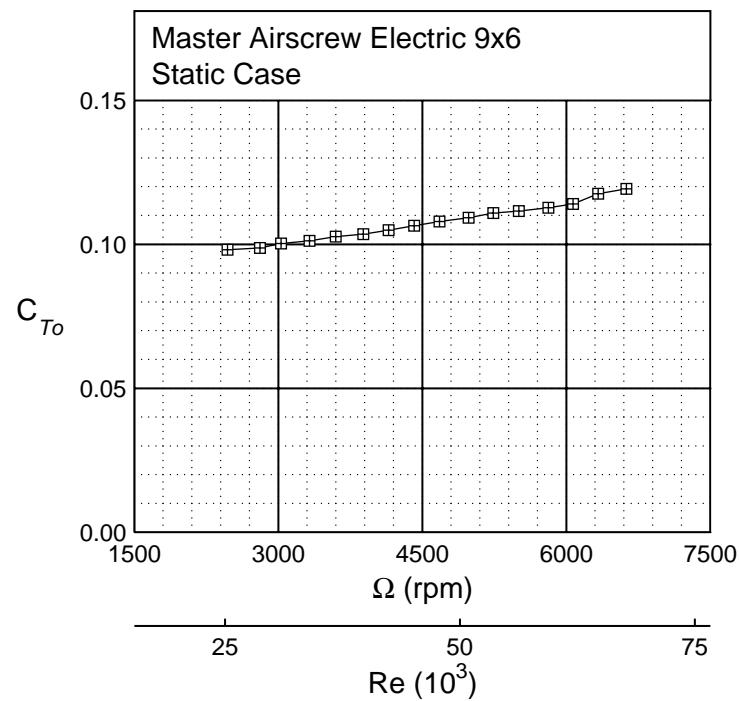


Figure 5.371: Master Airscrew Electric 9×6 static thrust.

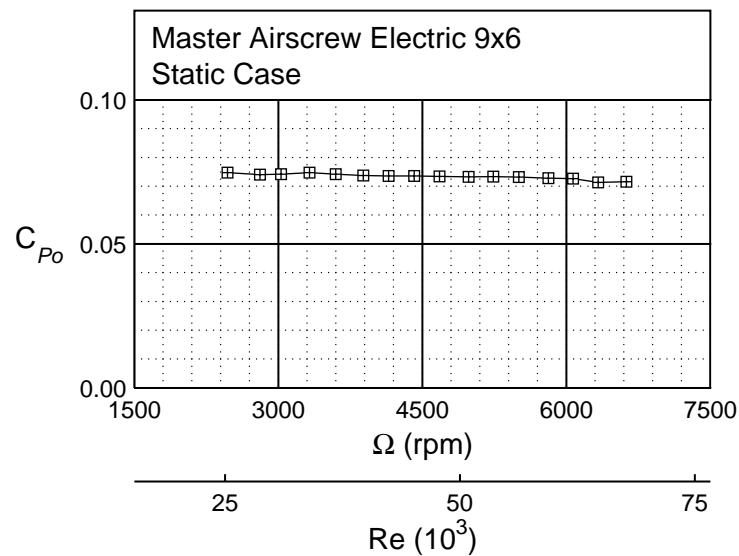
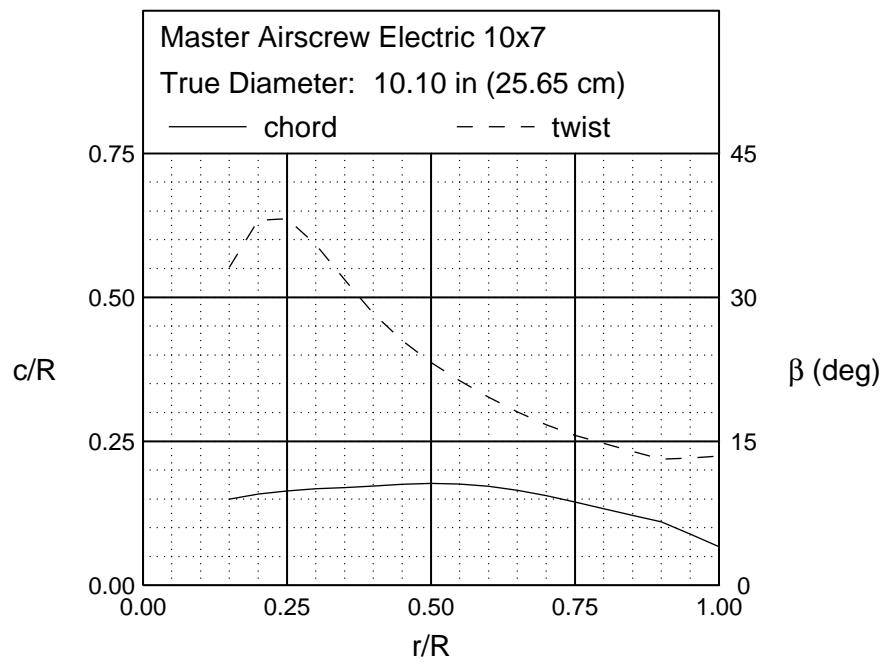


Figure 5.372: Master Airscrew Electric 9×6 static power.



Front View



Side View

Figure 5.373: Master Airscrew Electric 10×7 geometric characteristics.

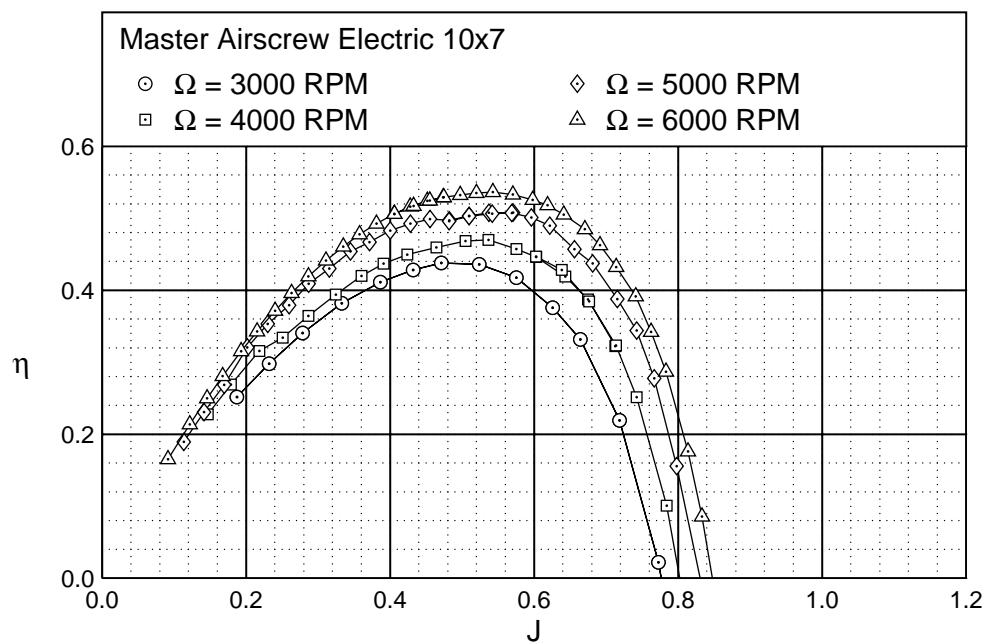


Figure 5.374: Master Airscrew Electric 10×7 efficiency curves.

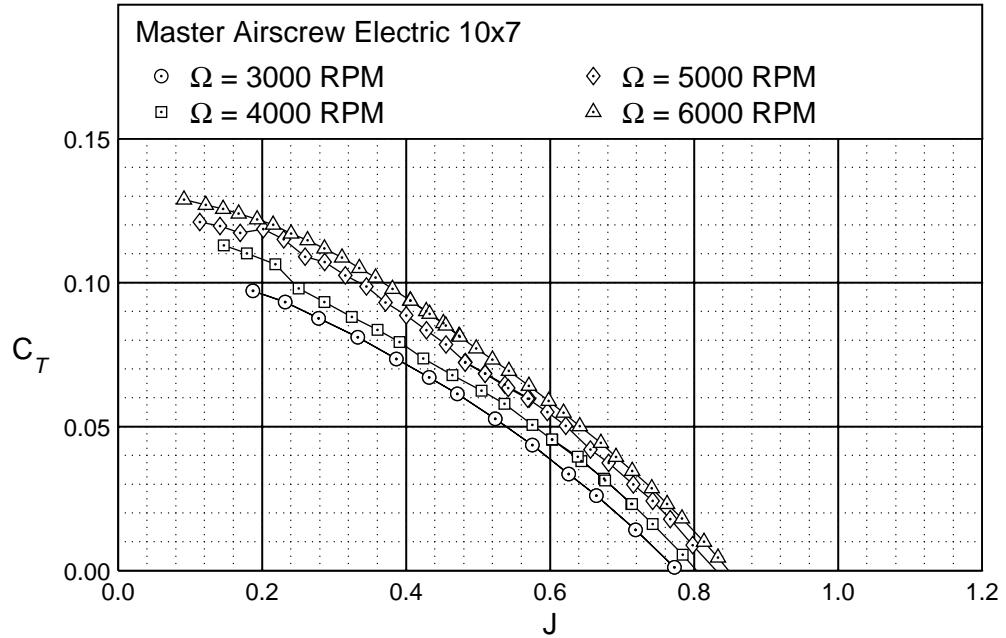


Figure 5.375: Master Airscrew Electric 10×7 thrust characteristics.

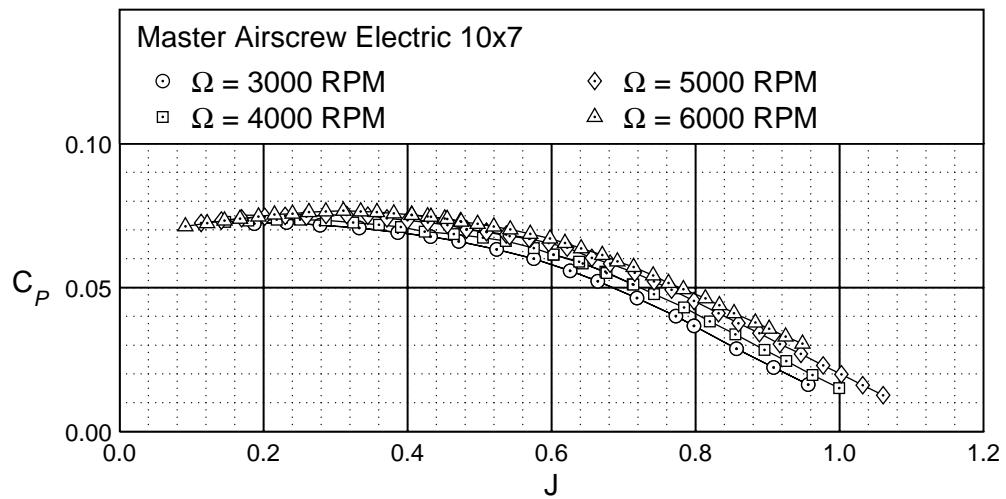


Figure 5.376: Master Airscrew Electric 10×7 power characteristics.

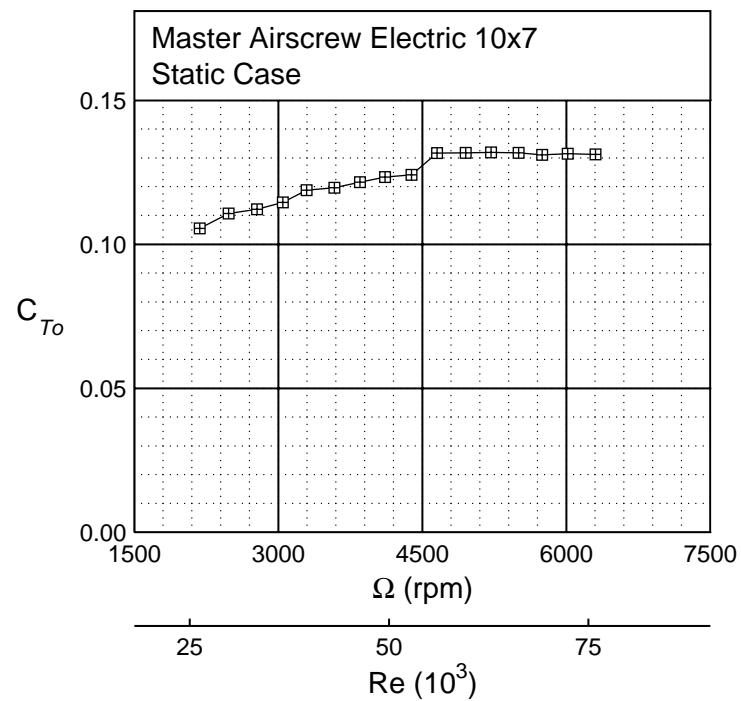


Figure 5.377: Master Airscrew Electric 10×7 static thrust.

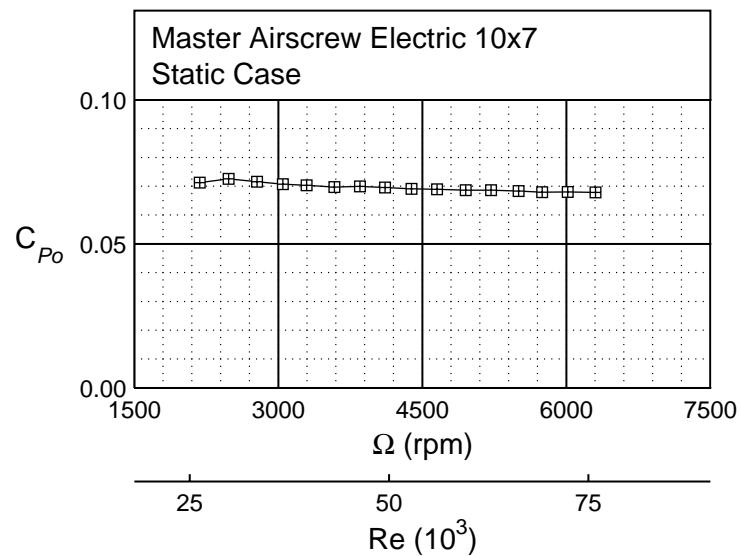
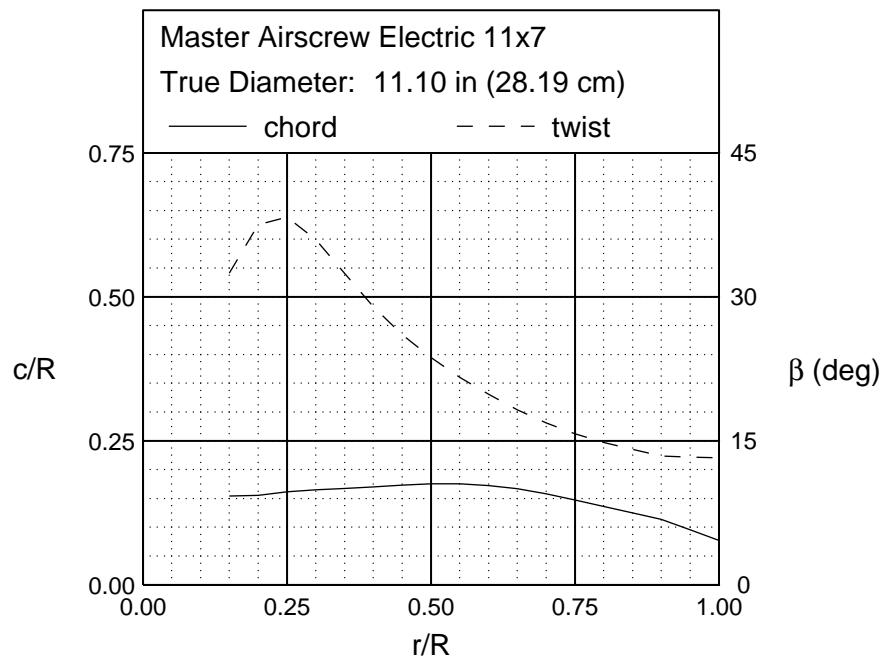


Figure 5.378: Master Airscrew Electric 10×7 static power.



Front View



Side View

Figure 5.379: Master Airscrew Electric 11×7 geometric characteristics.

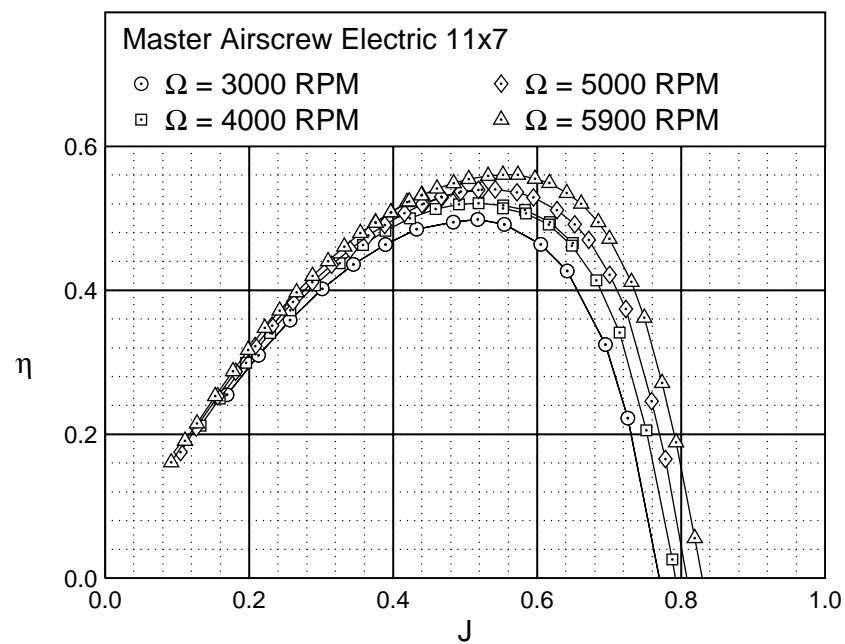


Figure 5.380: Master Airscrew Electric 11×7 efficiency curves.

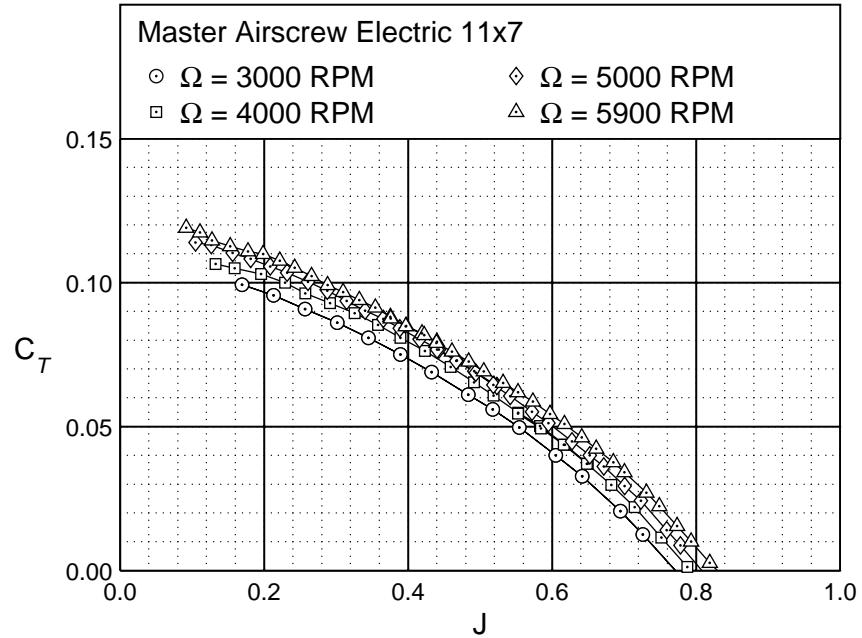


Figure 5.381: Master Airscrew Electric 11×7 thrust characteristics.

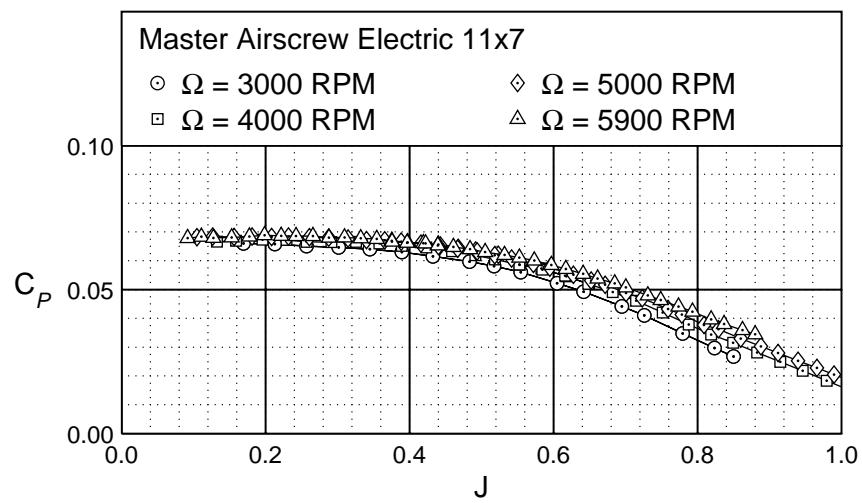


Figure 5.382: Master Airscrew Electric 11×7 power characteristics.

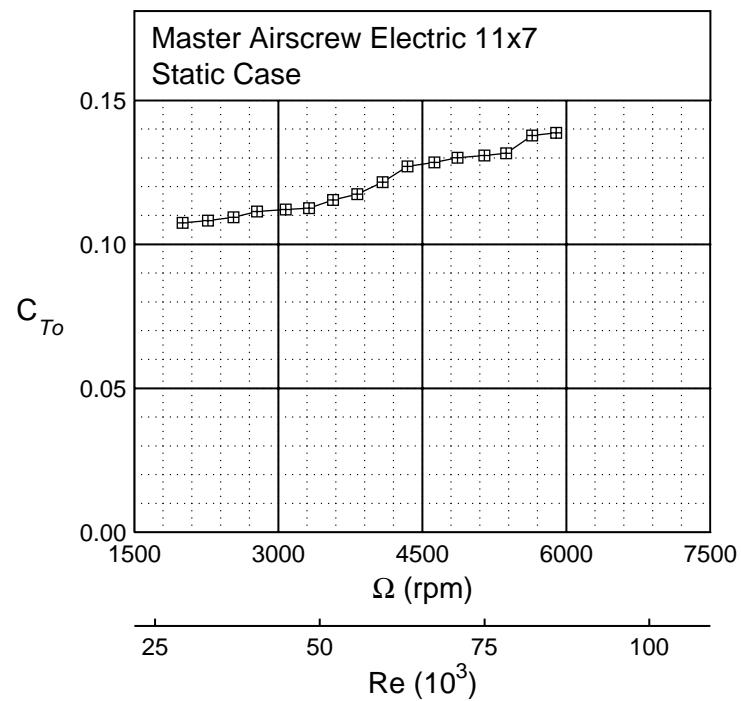


Figure 5.383: Master Airscrew Electric 11×7 static thrust.

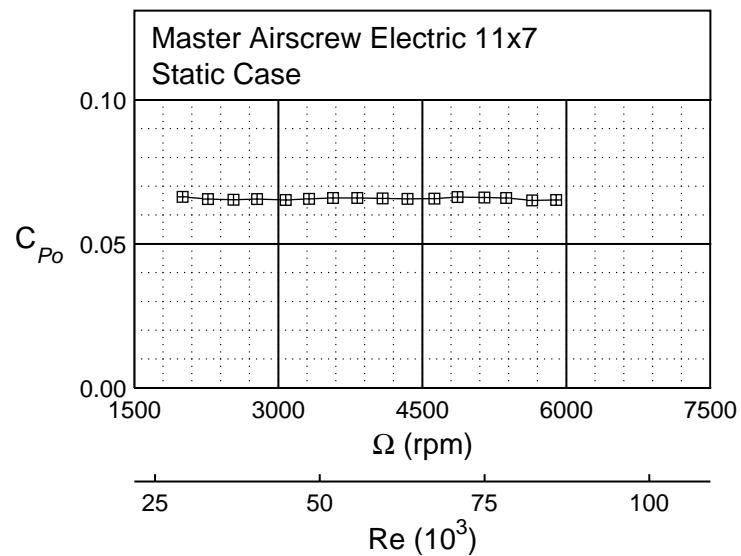
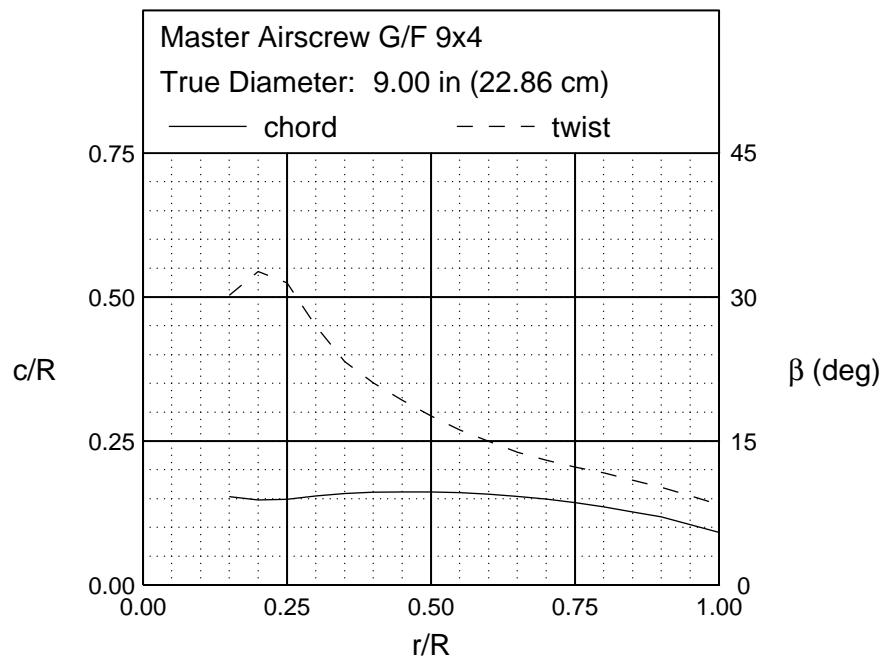


Figure 5.384: Master Airscrew Electric 11×7 static power.



Front View



Side View

Figure 5.385: Master Airscrew G/F 9×4 geometric characteristics.

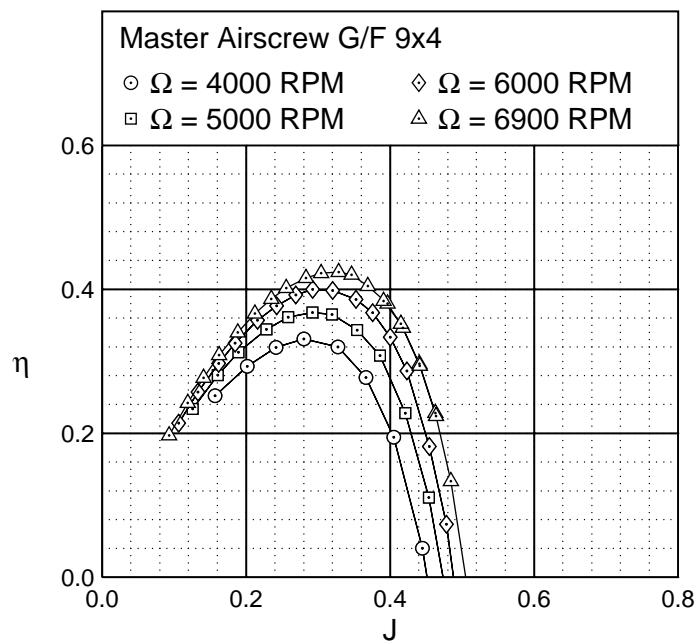


Figure 5.386: Master Airscrew G/F 9×4 efficiency curves.

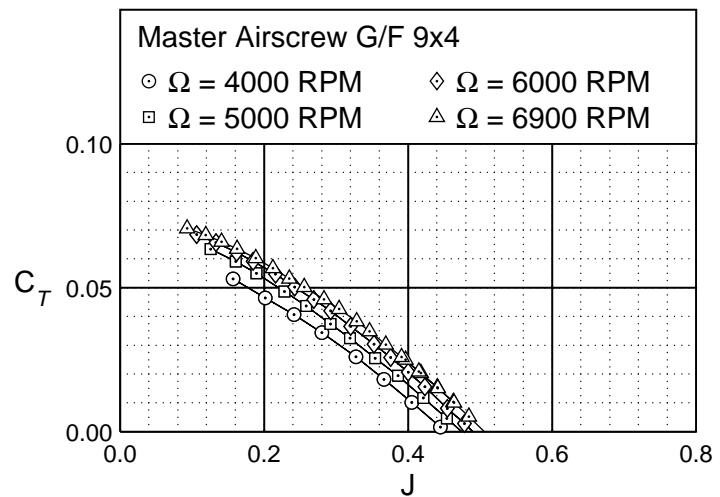


Figure 5.387: Master Airscrew G/F 9×4 thrust characteristics.

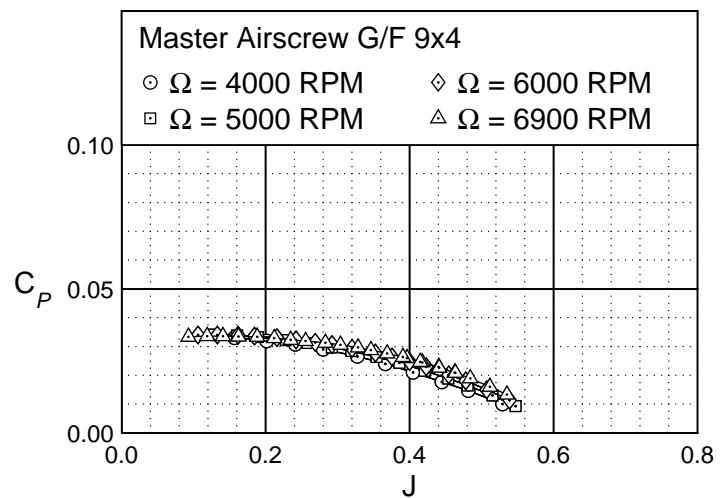


Figure 5.388: Master Airscrew G/F 9×4 power characteristics.

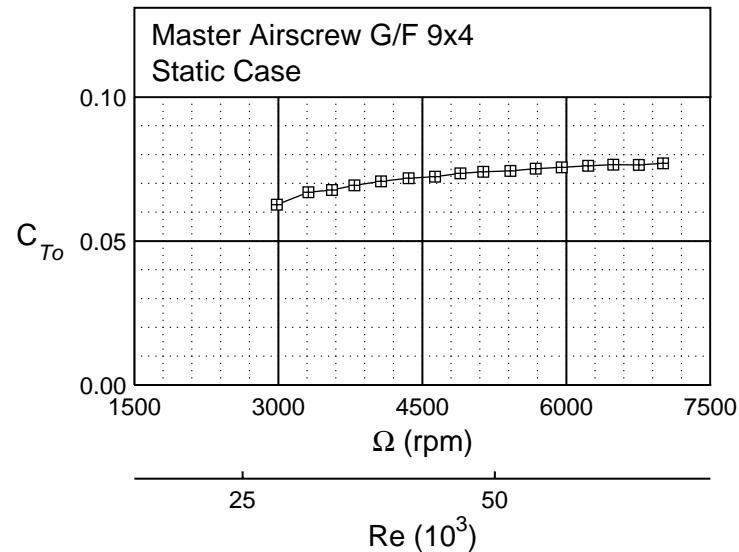


Figure 5.389: Master Airscrew G/F 9×4 static thrust.

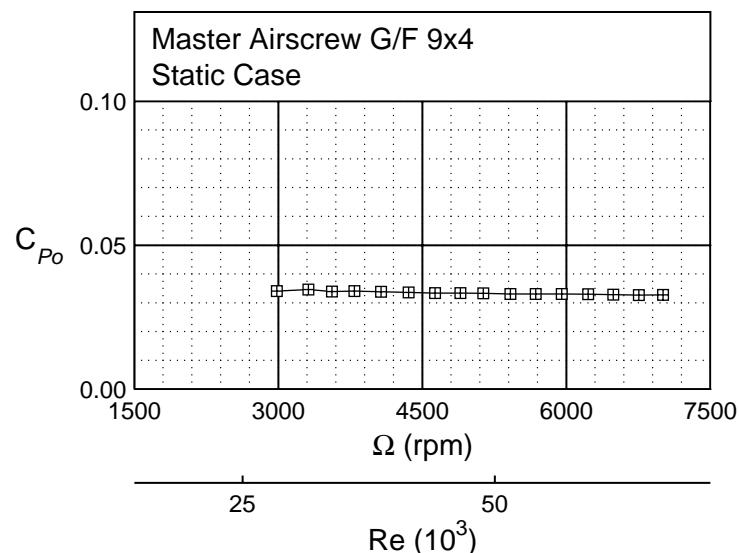
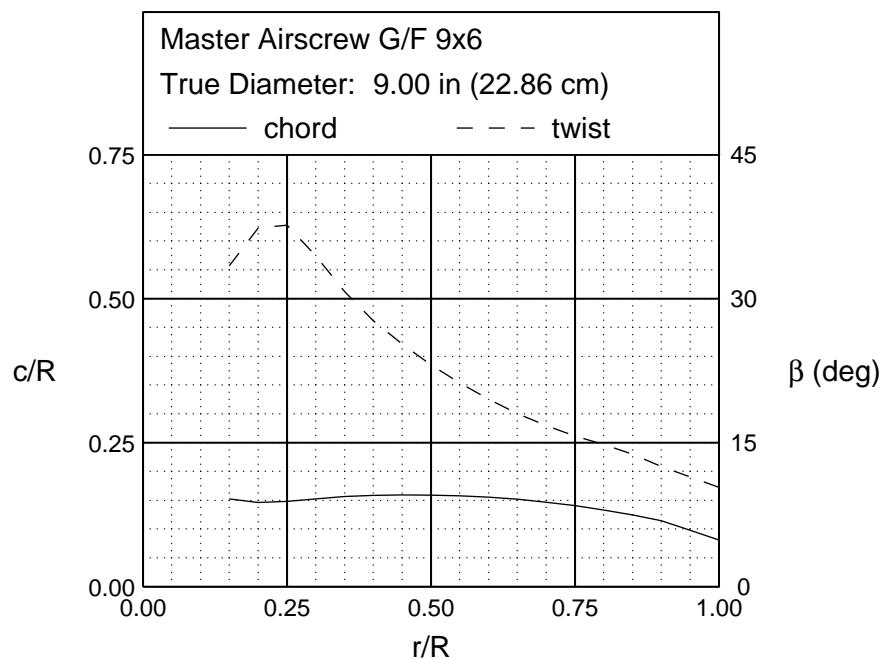


Figure 5.390: Master Airscrew G/F 9×4 static power.



Front View



Side View

Figure 5.391: Master Airscrew G/F 9×6 geometric characteristics.

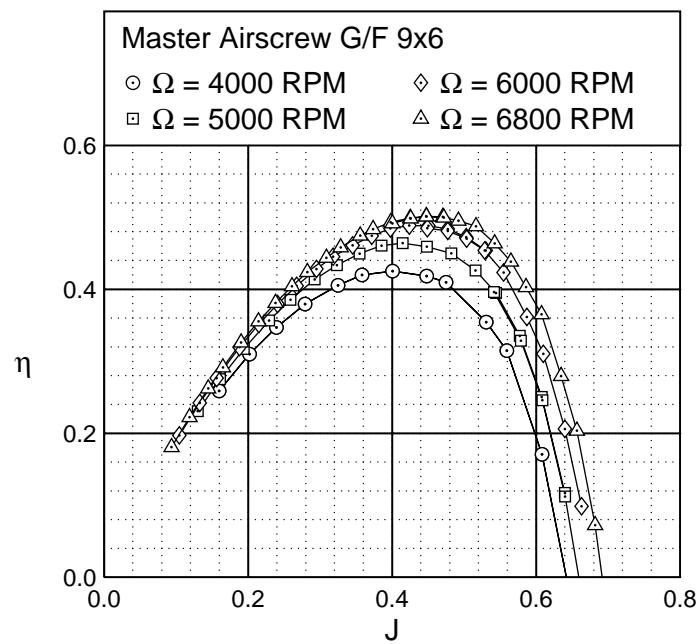


Figure 5.392: Master Airscrew G/F 9×6 efficiency curves.

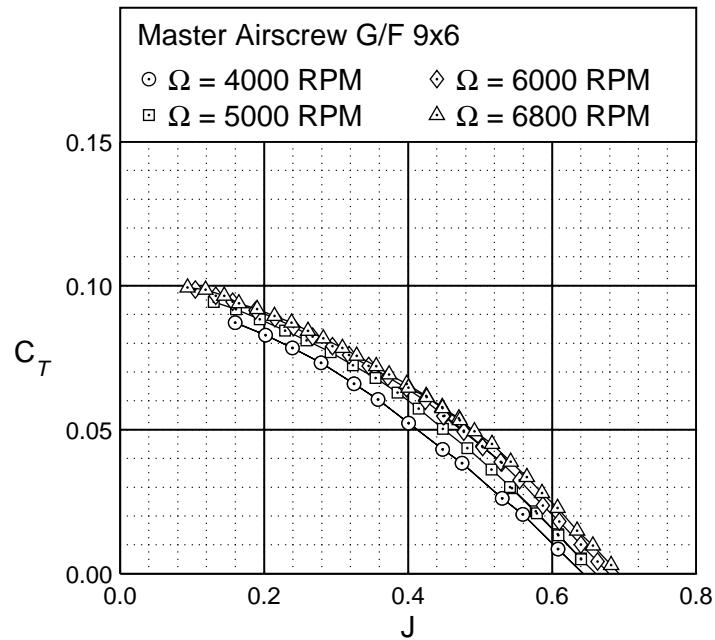


Figure 5.393: Master Airscrew G/F 9×6 thrust characteristics.

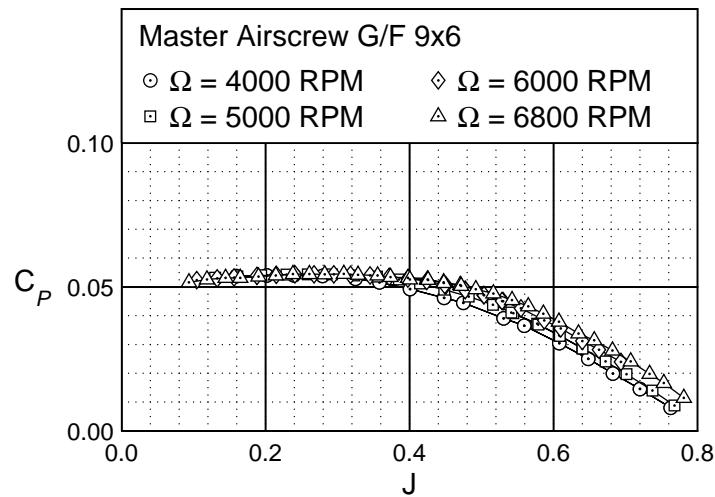


Figure 5.394: Master Airscrew G/F 9×6 power characteristics.

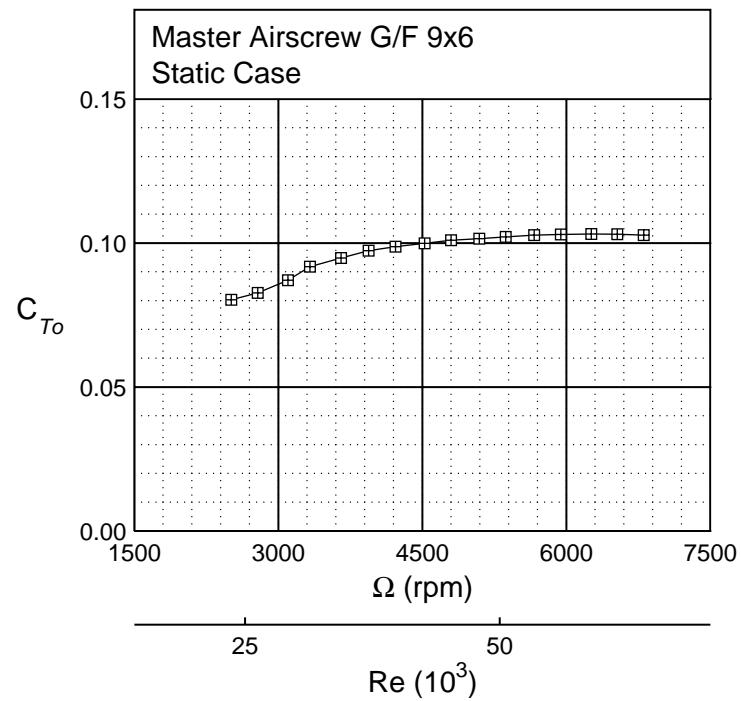


Figure 5.395: Master Airscrew G/F 9×6 static thrust.

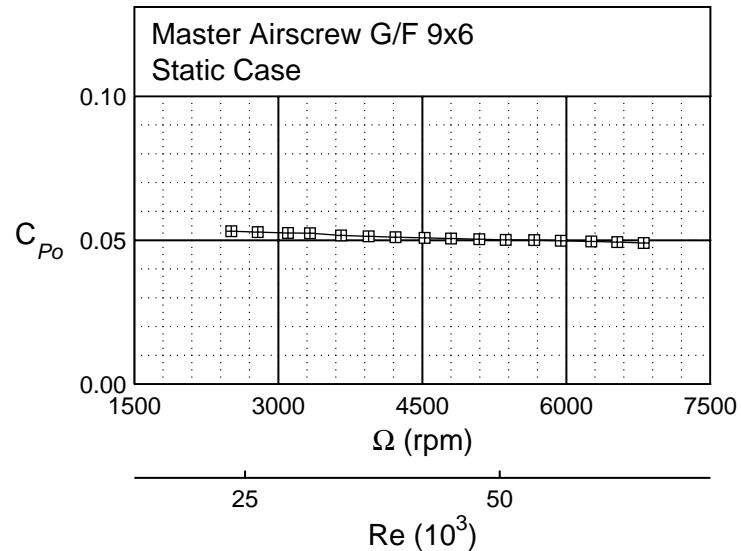
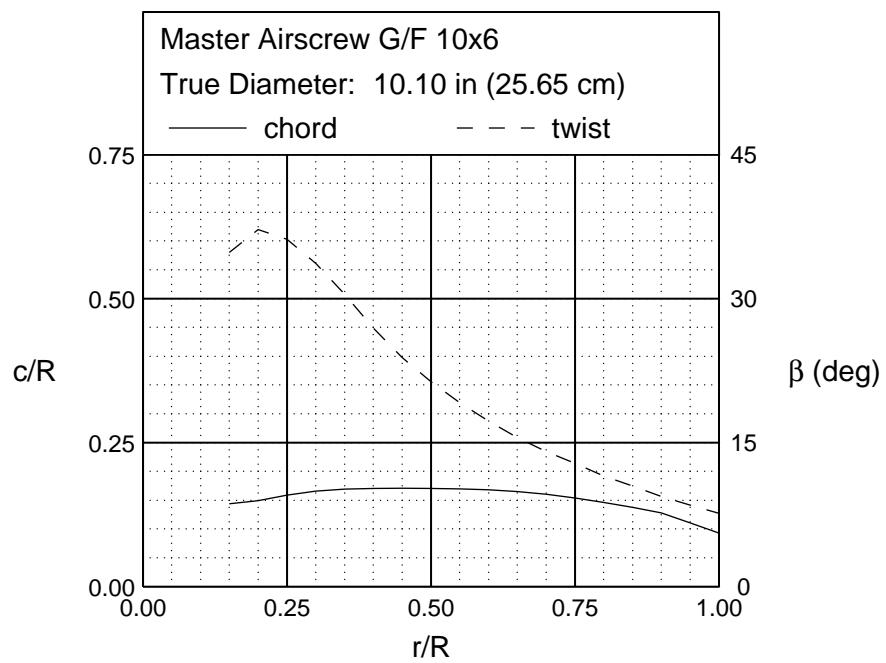


Figure 5.396: Master Airscrew G/F 9×6 static power.



Front View



Side View

Figure 5.397: Master Airscrew G/F 10×6 geometric characteristics.

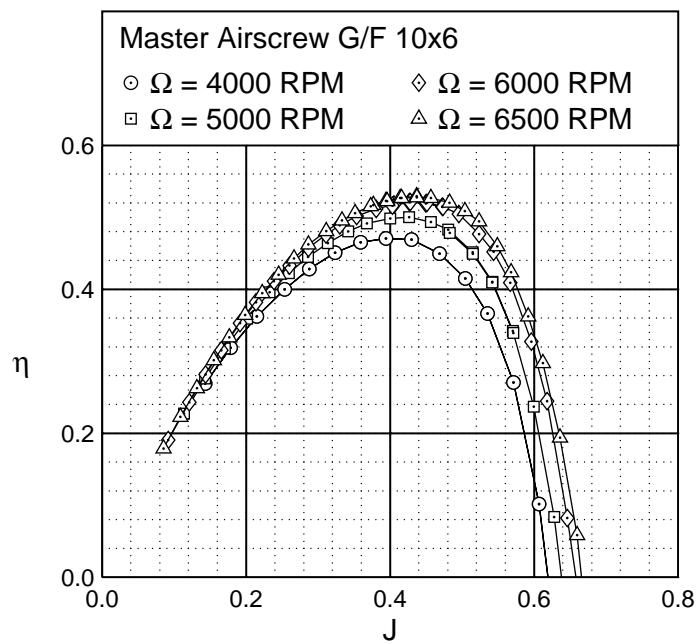


Figure 5.398: Master Airscrew G/F 10×6 efficiency curves.

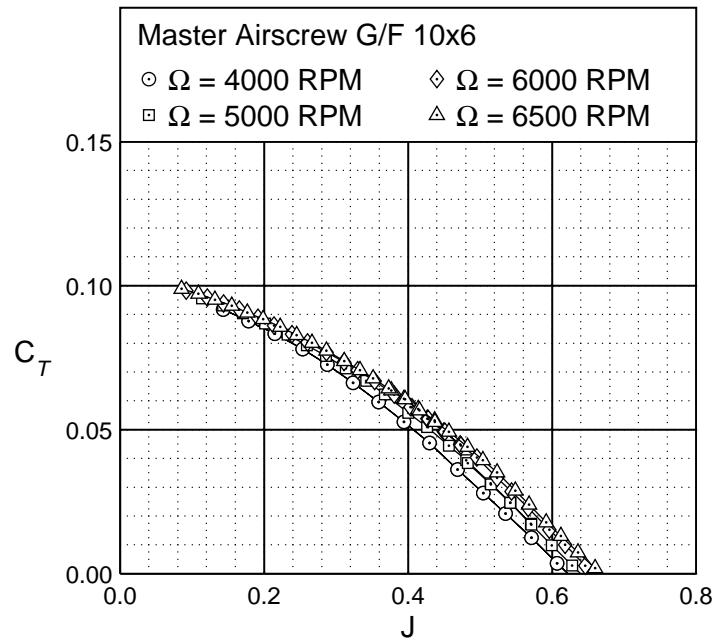


Figure 5.399: Master Airscrew G/F 10×6 thrust characteristics.

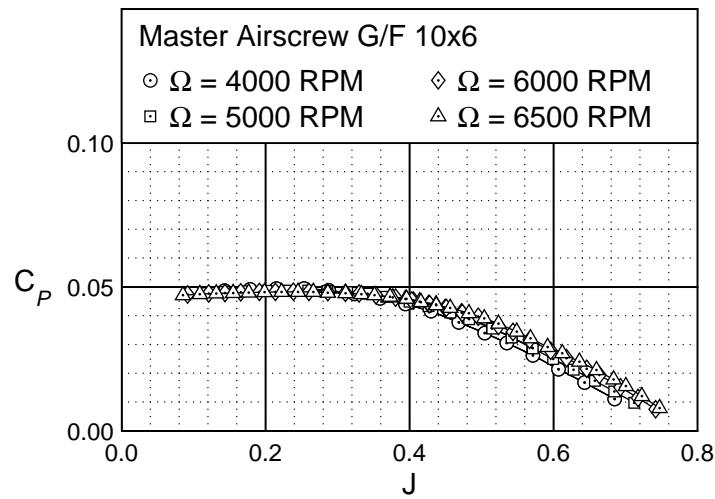


Figure 5.400: Master Airscrew G/F 10×6 power characteristics.

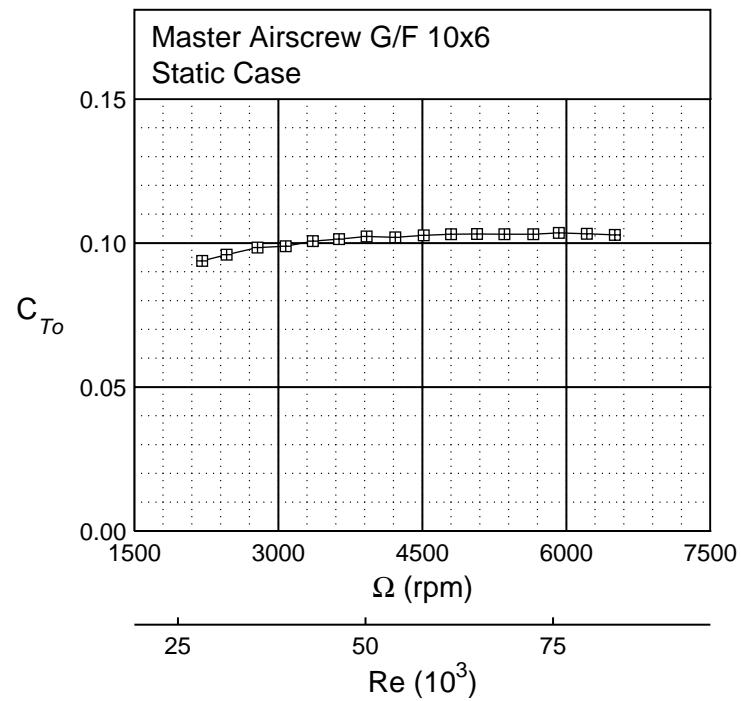


Figure 5.401: Master Airscrew G/F 10×6 static thrust.

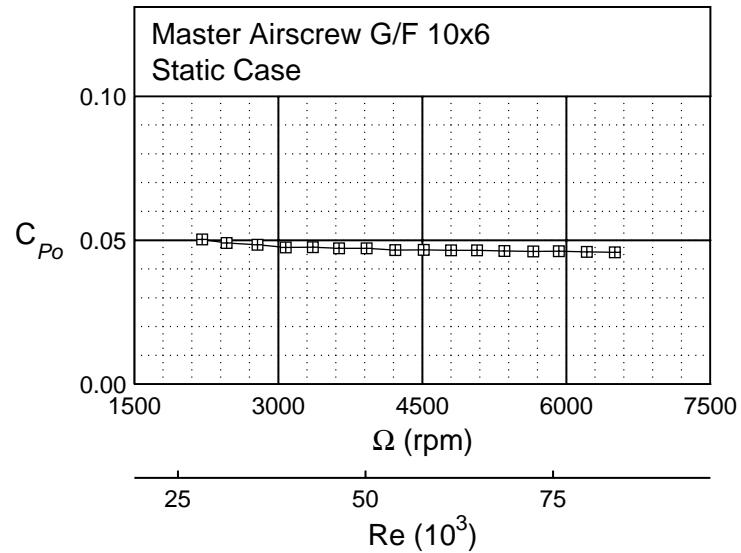
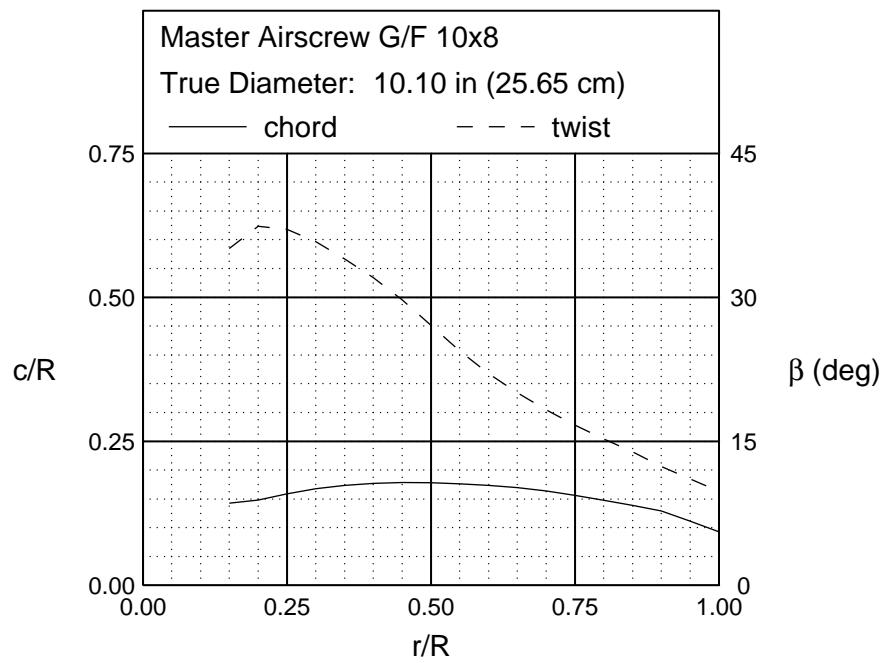


Figure 5.402: Master Airscrew G/F 10×6 static power.



Front View



Side View

Figure 5.403: Master Airscrew G/F 10×8 geometric characteristics.

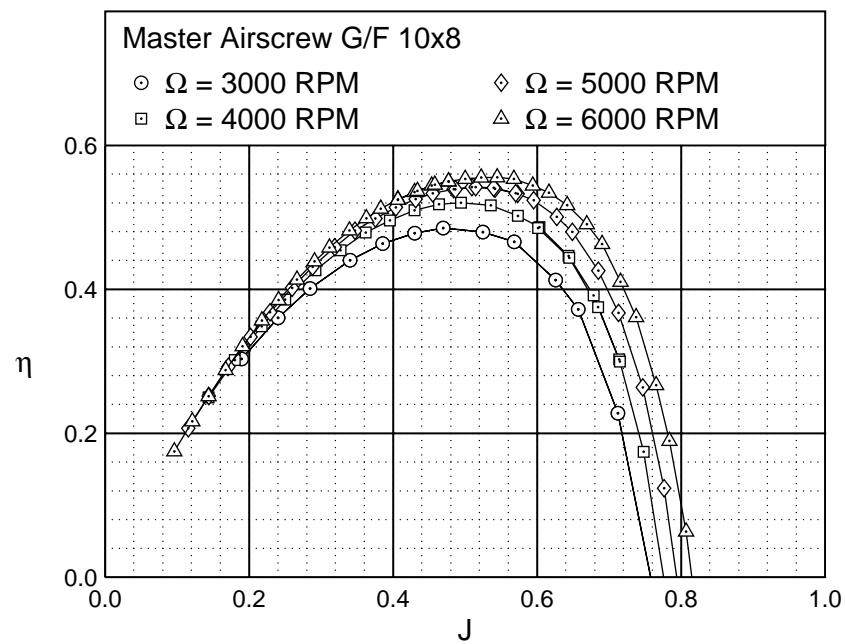


Figure 5.404: Master Airscrew G/F 10×8 efficiency curves.

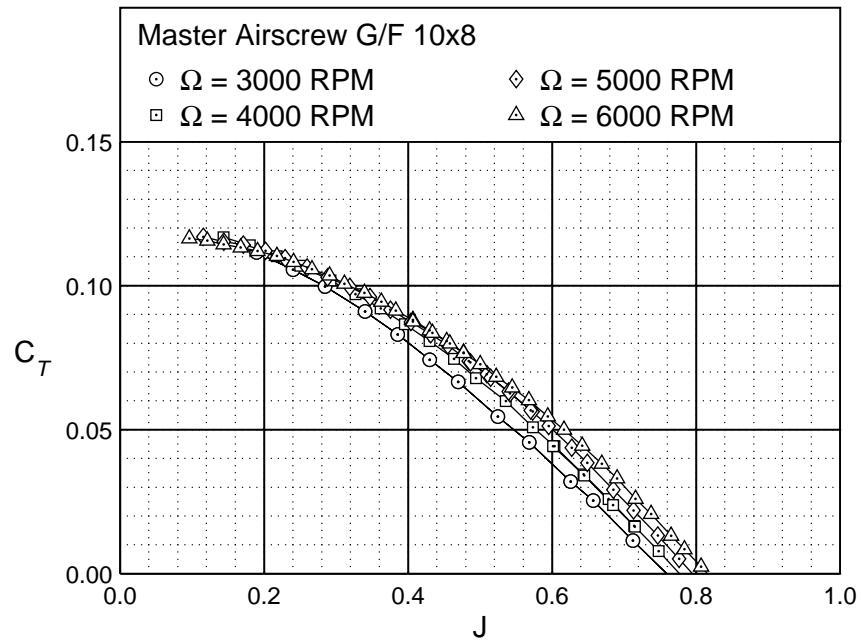


Figure 5.405: Master Airscrew G/F 10×8 thrust characteristics.

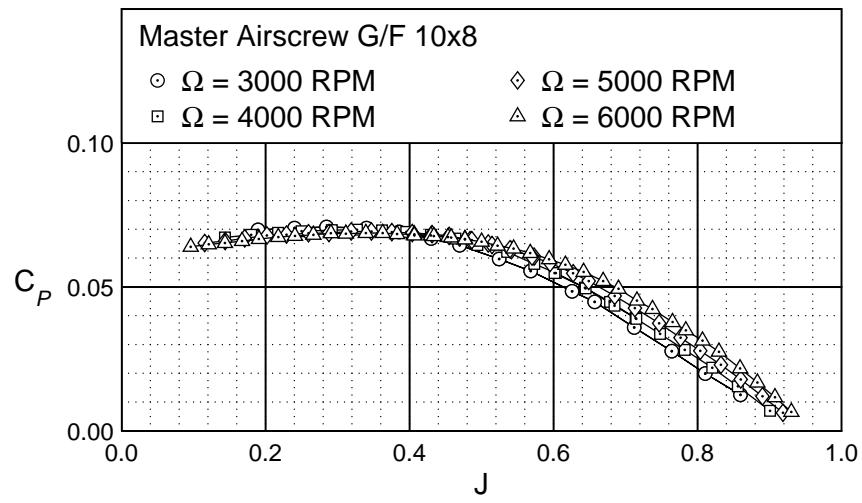


Figure 5.406: Master Airscrew G/F 10×8 power characteristics.

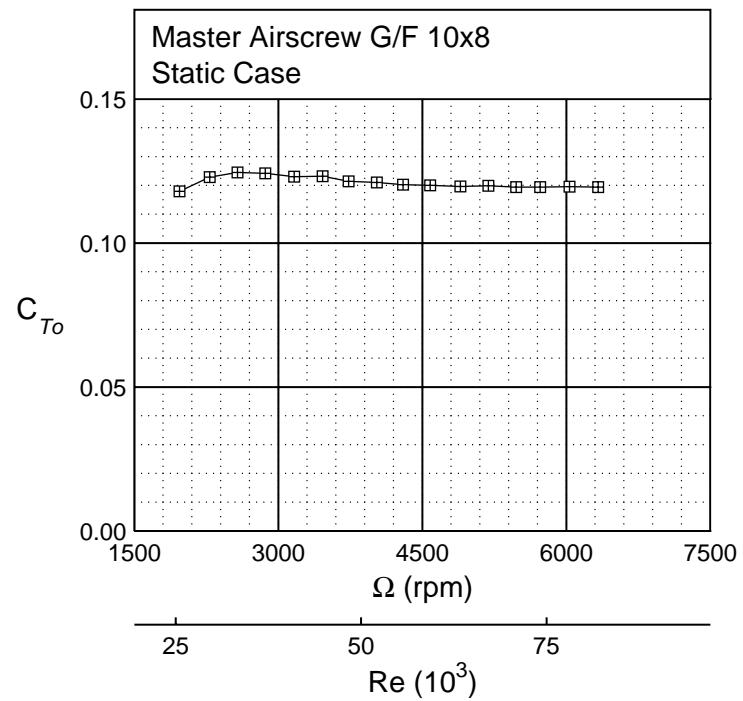


Figure 5.407: Master Airscrew G/F 10×8 static thrust.

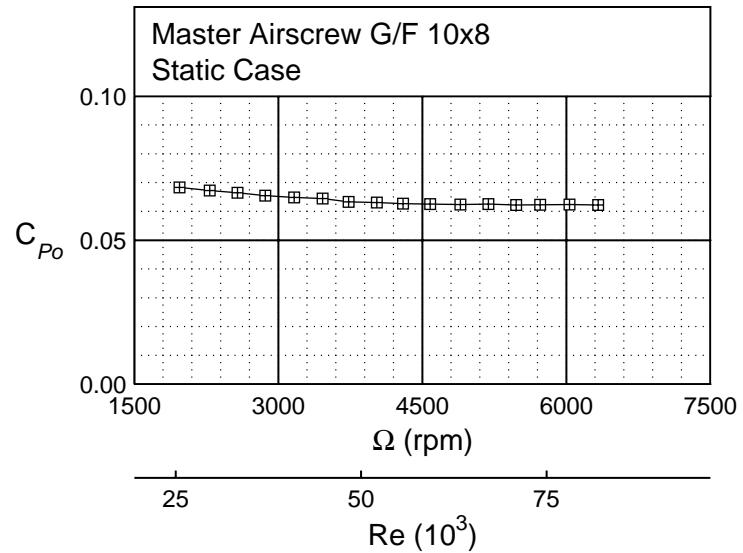
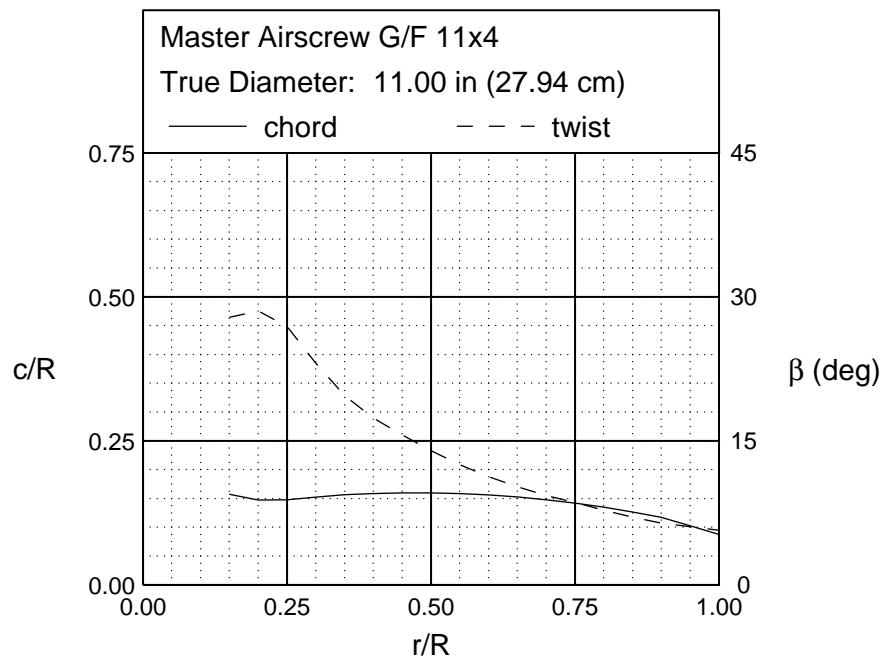


Figure 5.408: Master Airscrew G/F 10×8 static power.



Front View



Side View

Figure 5.409: Master Airscrew G/F 11×4 geometric characteristics.

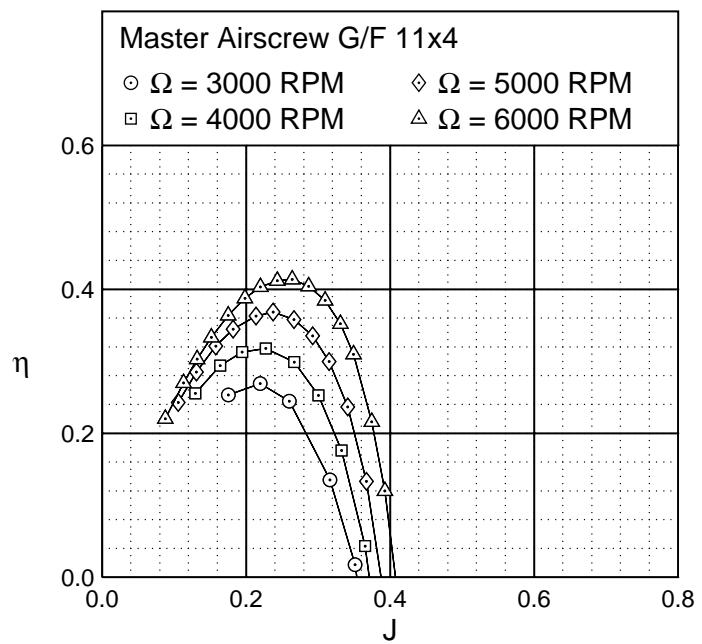


Figure 5.410: Master Airscrew G/F 11×4 efficiency curves.

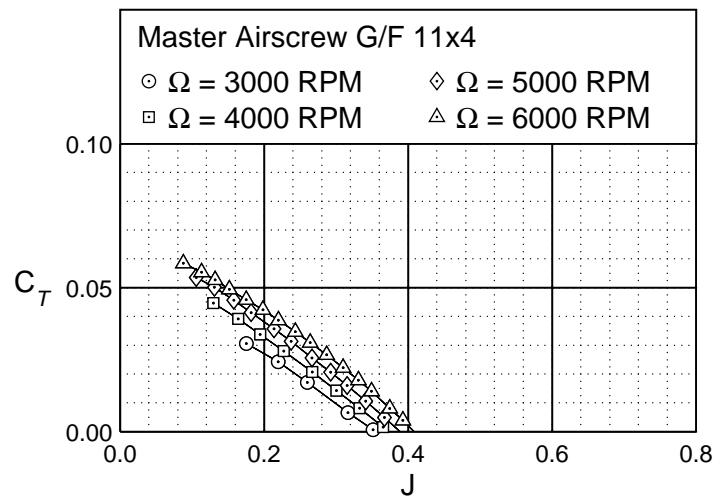


Figure 5.411: Master Airscrew G/F 11×4 thrust characteristics.

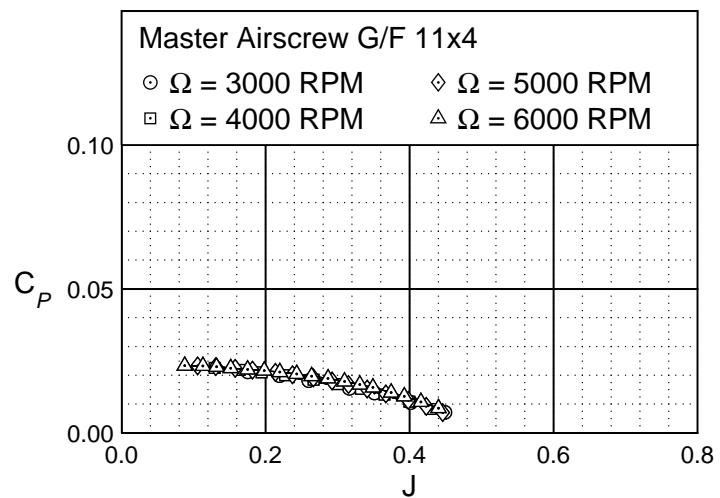


Figure 5.412: Master Airscrew G/F 11×4 power characteristics.

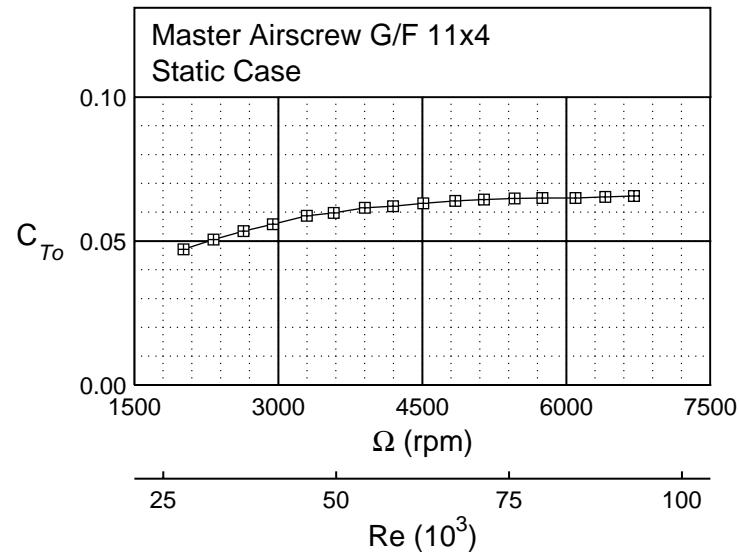


Figure 5.413: Master Airscrew G/F 11×4 static thrust.

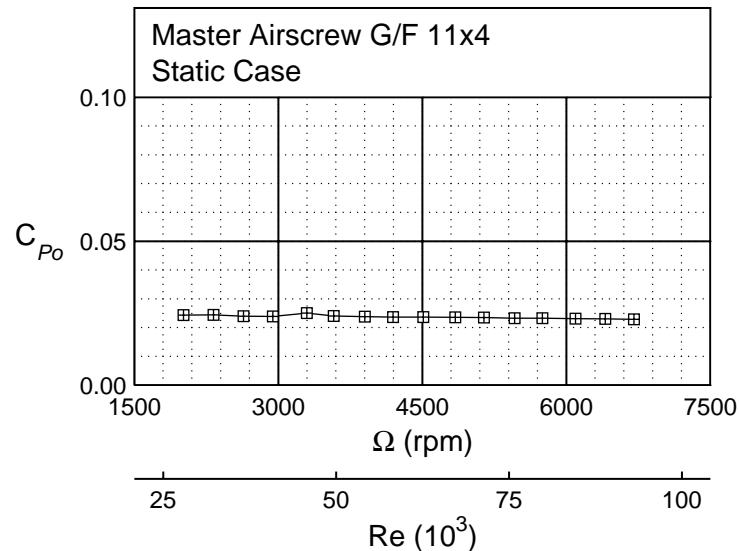
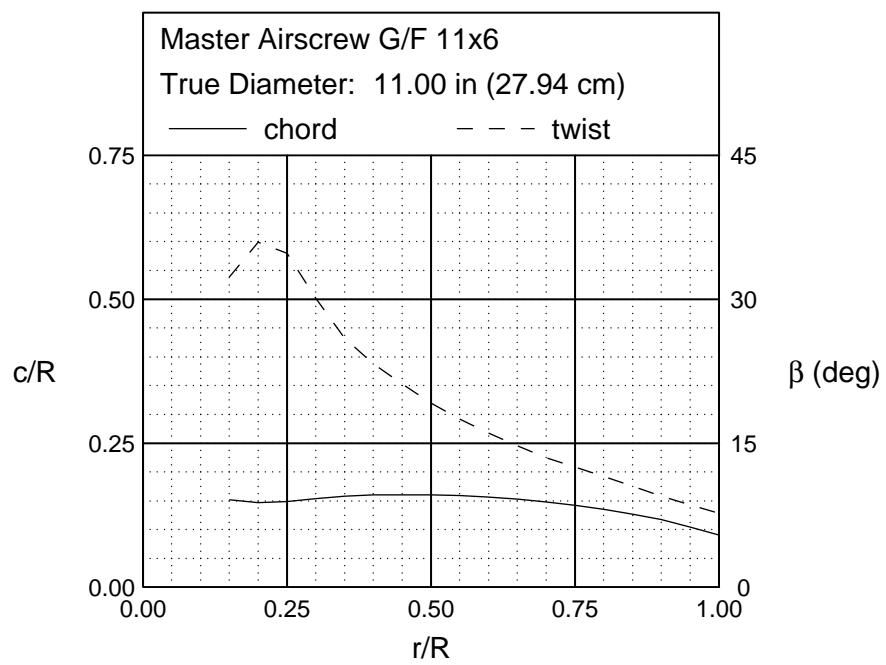


Figure 5.414: Master Airscrew G/F 11×4 static power.



Front View



Side View

Figure 5.415: Master Airscrew G/F 11×6 geometric characteristics.

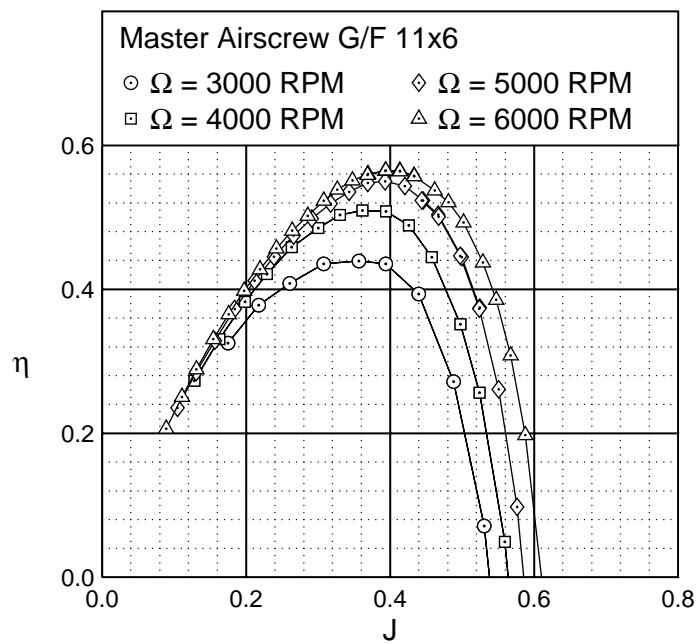


Figure 5.416: Master Airscrew G/F 11×6 efficiency curves.

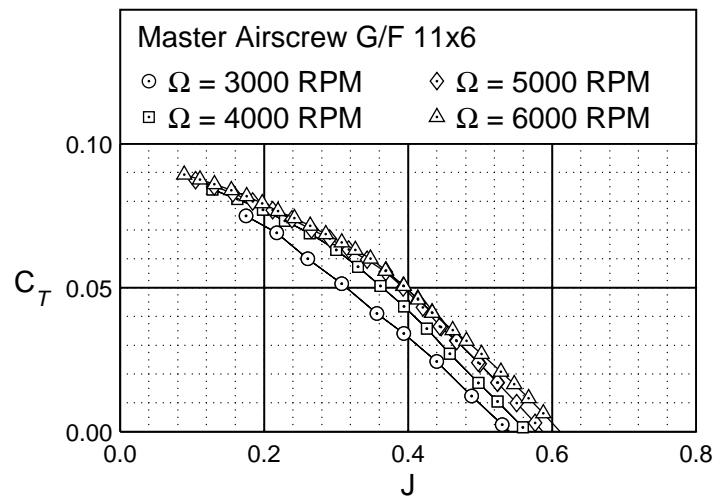


Figure 5.417: Master Airscrew G/F 11×6 thrust characteristics.

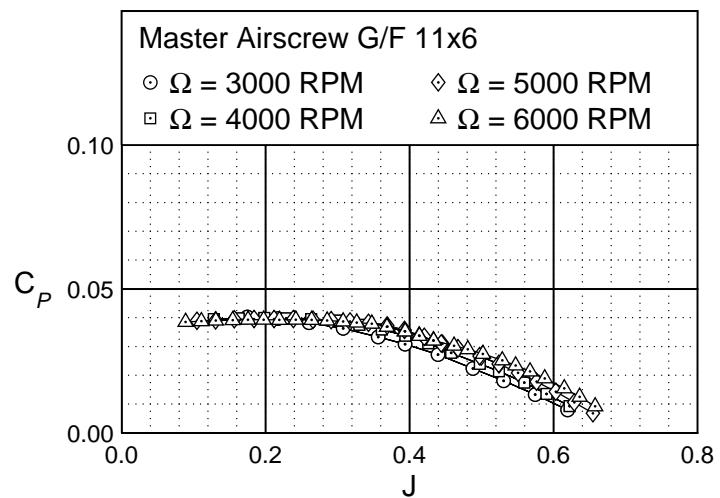


Figure 5.418: Master Airscrew G/F 11×6 power characteristics.

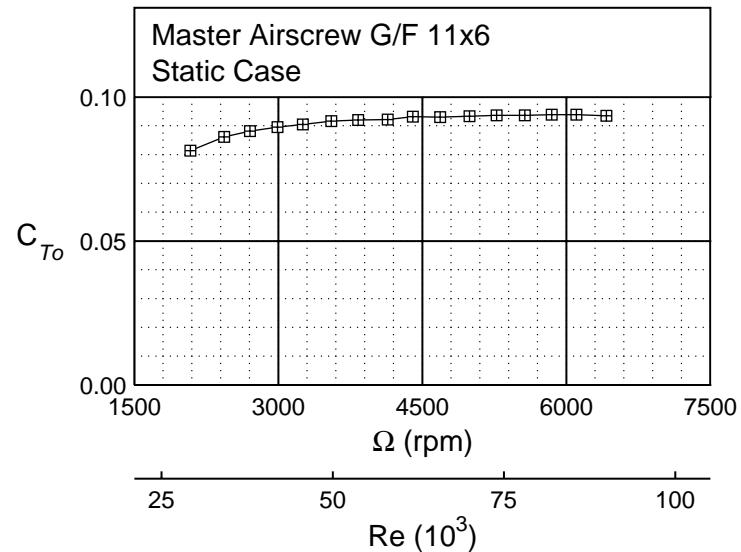


Figure 5.419: Master Airscrew G/F 11×6 static thrust.

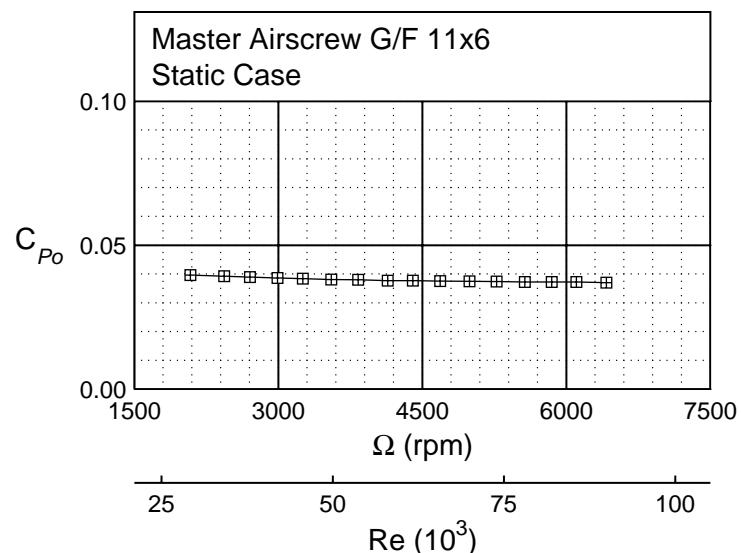
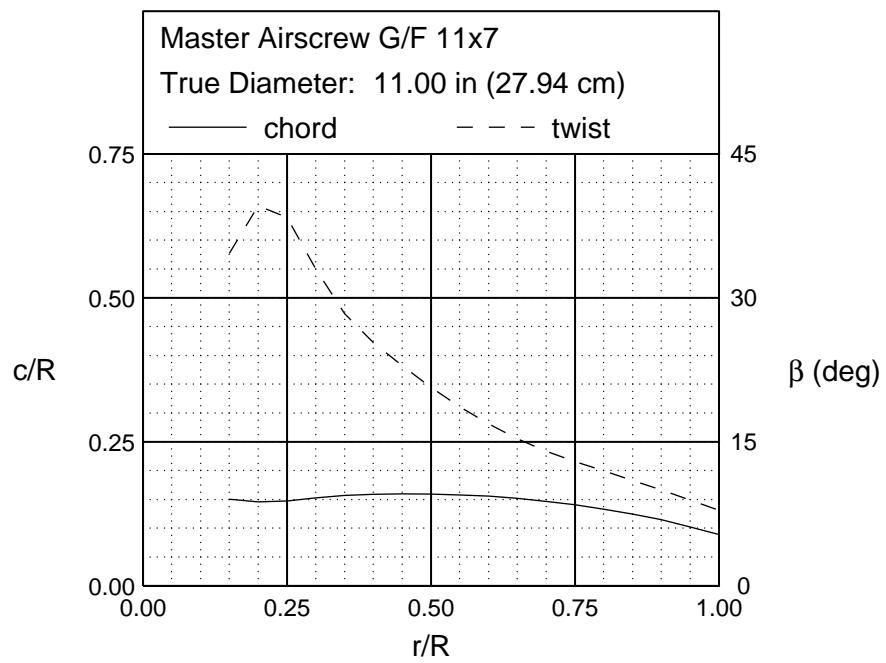


Figure 5.420: Master Airscrew G/F 11×6 static power.



Front View



Side View

Figure 5.421: Master Airscrew G/F 11×7 geometric characteristics.

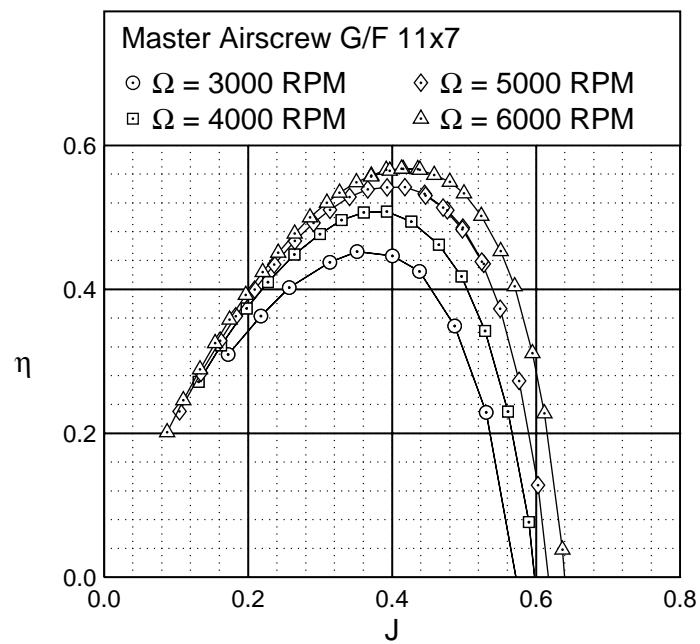


Figure 5.422: Master Airscrew G/F 11×7 efficiency curves.

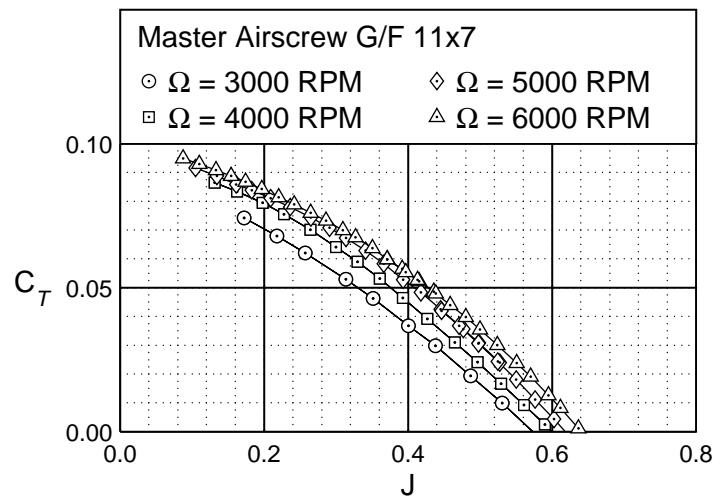


Figure 5.423: Master Airscrew G/F 11×7 thrust characteristics.

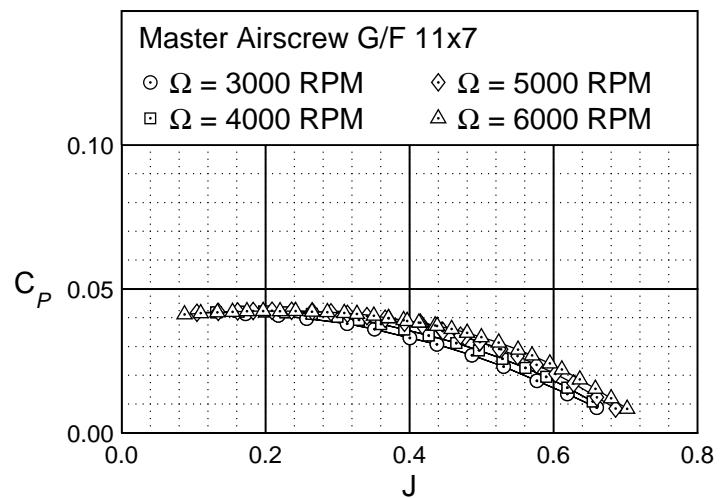


Figure 5.424: Master Airscrew G/F 11×7 power characteristics.

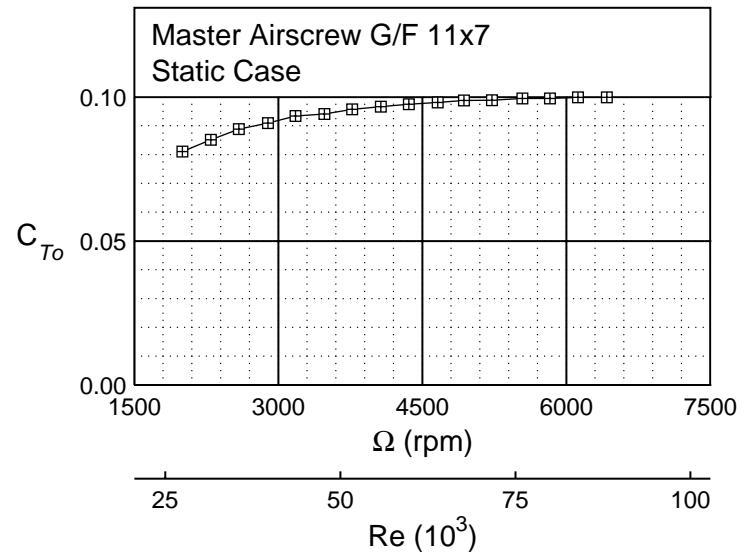


Figure 5.425: Master Airscrew G/F 11×7 static thrust.

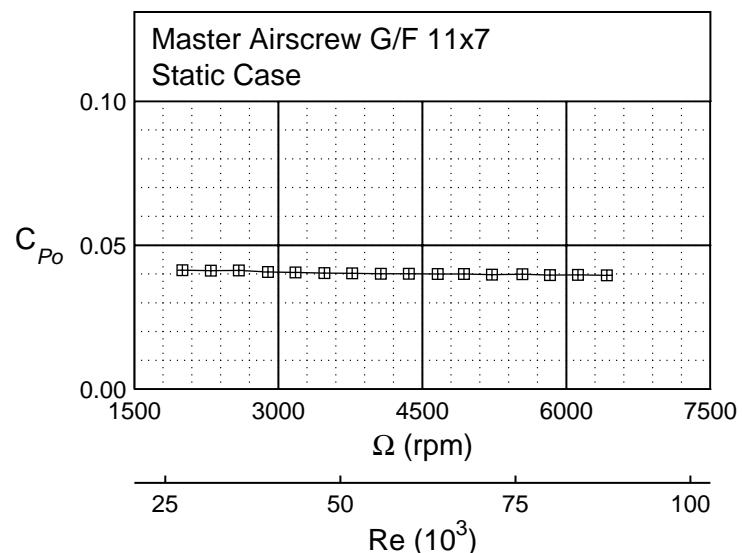
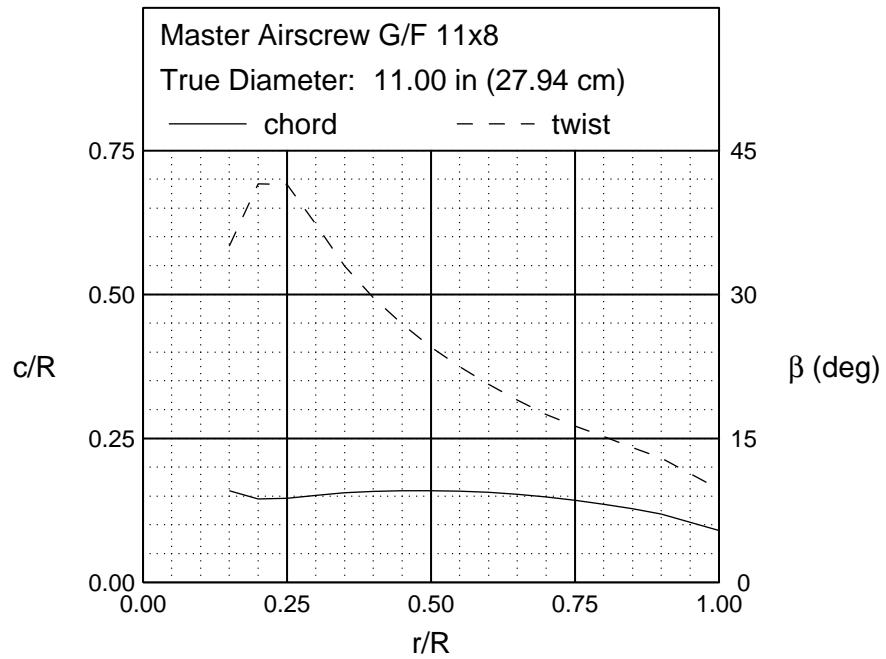


Figure 5.426: Master Airscrew G/F 11×7 static power.



Front View



Side View

Figure 5.427: Master Airscrew G/F 11×8 geometric characteristics.

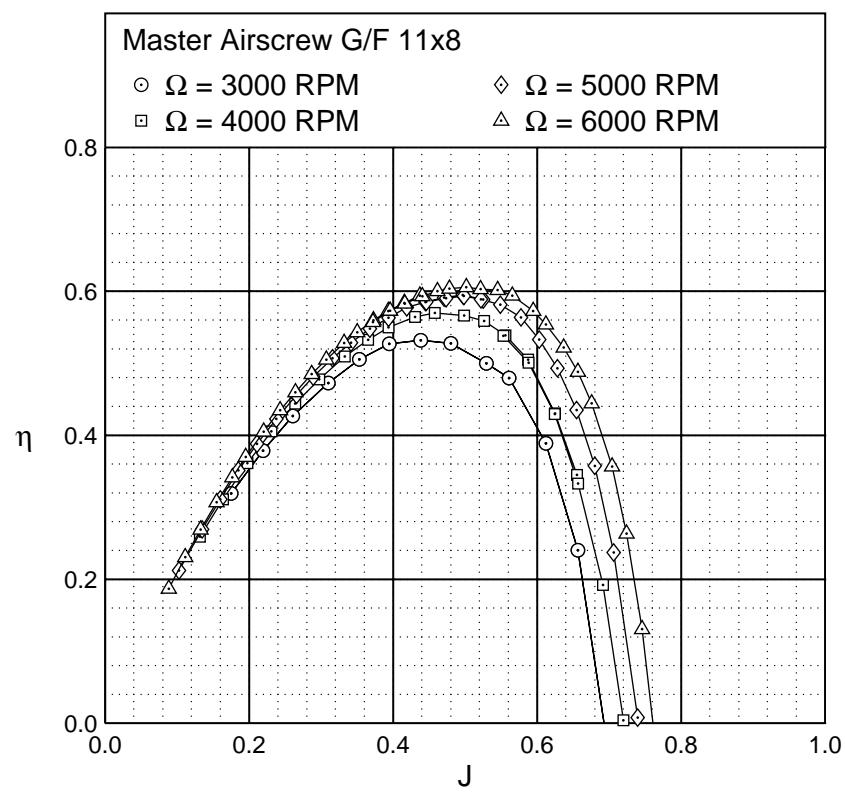


Figure 5.428: Master Airscrew G/F 11×8 efficiency curves.

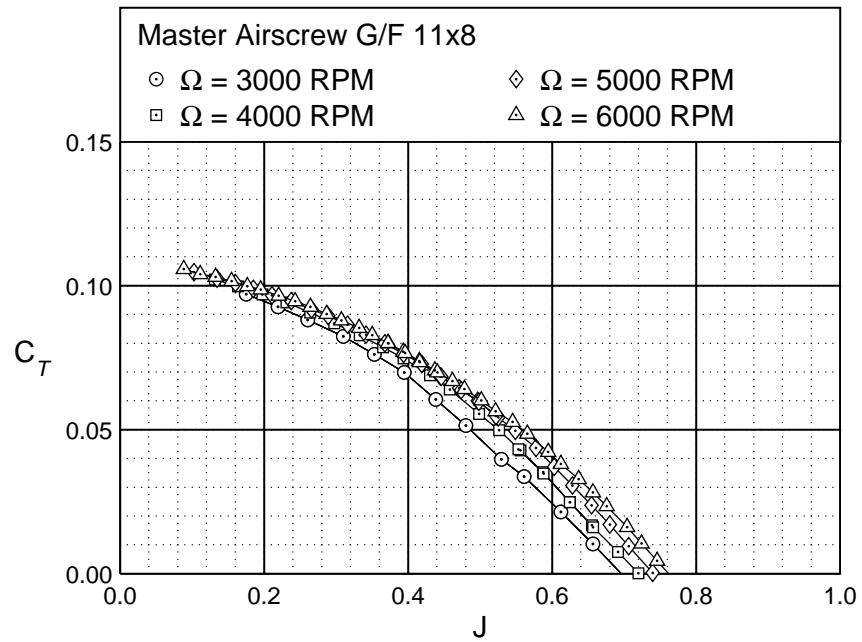


Figure 5.429: Master Airscrew G/F 11×8 thrust characteristics.

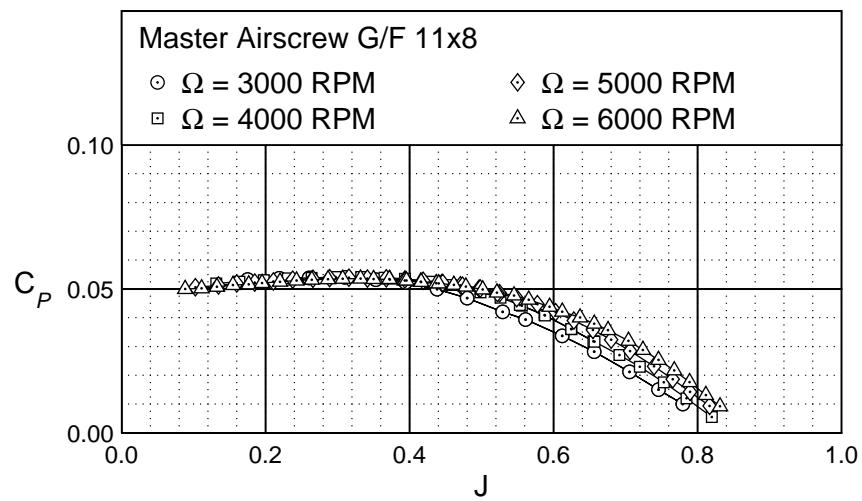


Figure 5.430: Master Airscrew G/F 11×8 power characteristics.

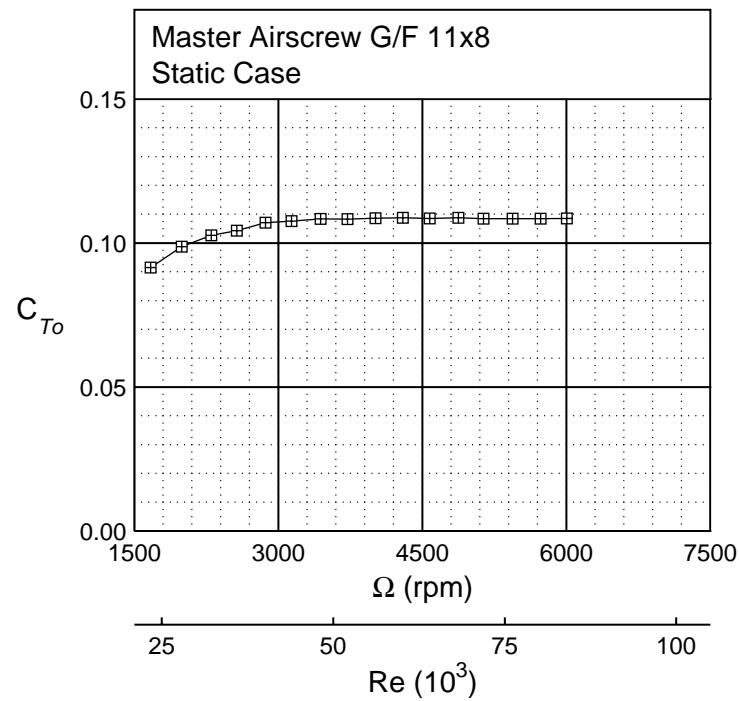


Figure 5.431: Master Airscrew G/F 11×8 static thrust.

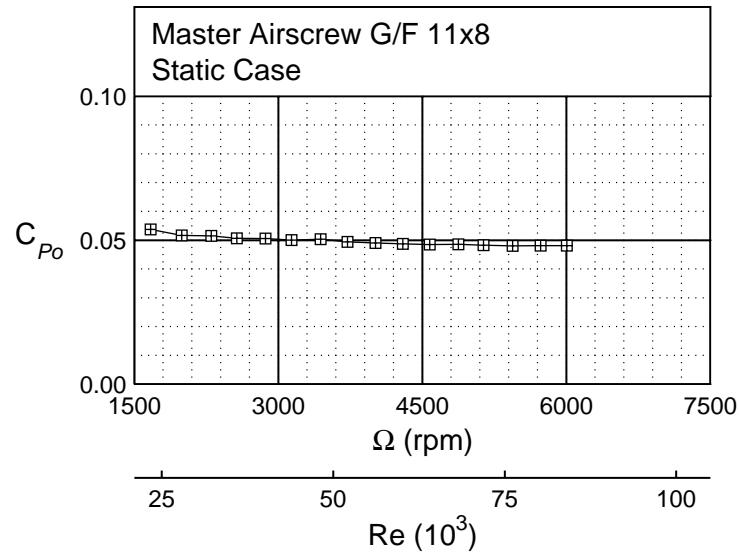
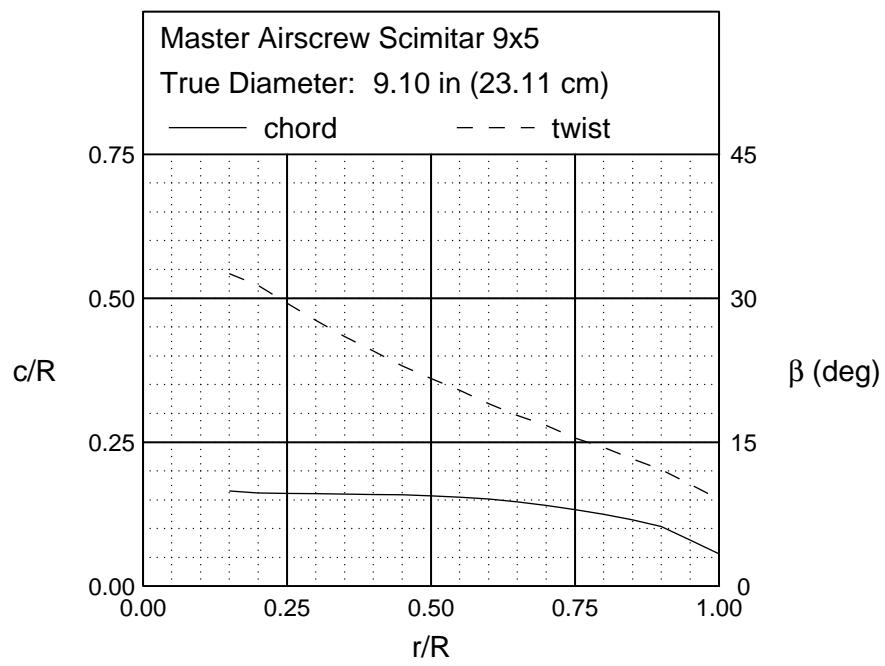


Figure 5.432: Master Airscrew G/F 11×8 static power.



Front View



Side View

Figure 5.433: Master Airscrew Scimitar 9×5 geometric characteristics.

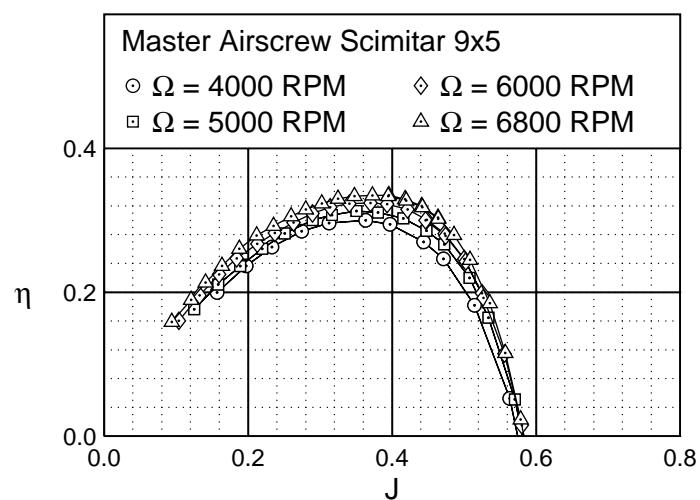


Figure 5.434: Master Airscrew Scimitar 9×5 efficiency curves.

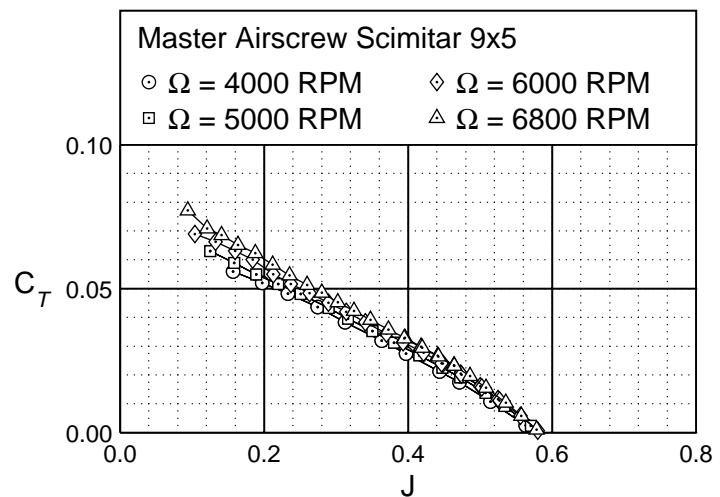


Figure 5.435: Master Airscrew Scimitar 9×5 thrust characteristics.

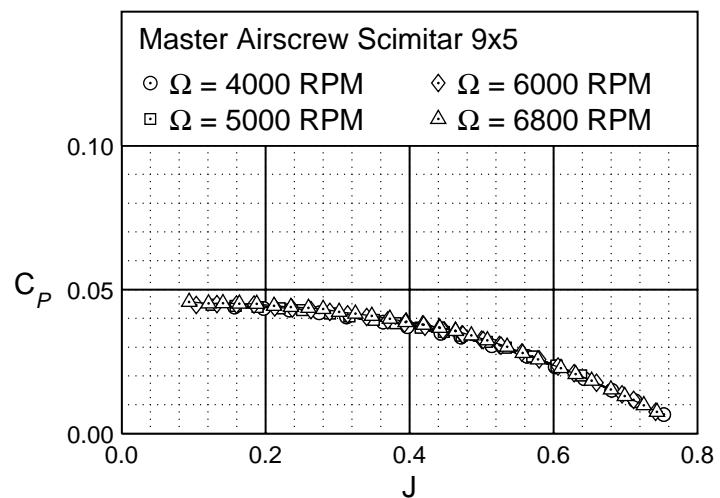


Figure 5.436: Master Airscrew Scimitar 9×5 power characteristics.

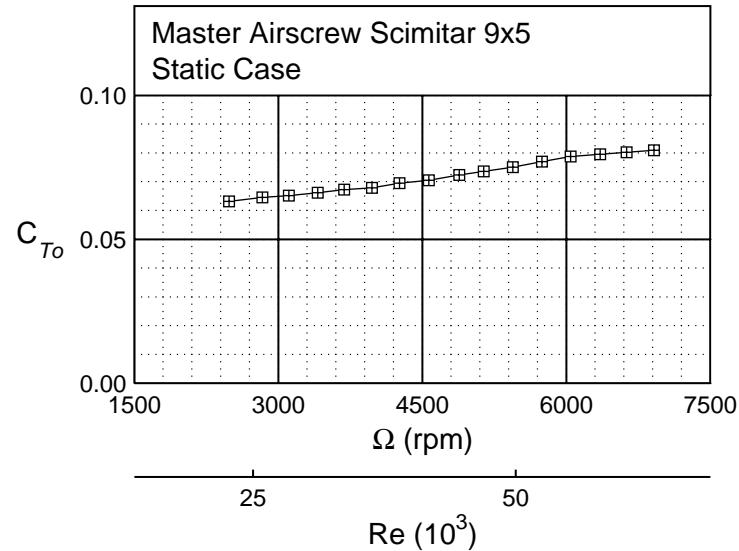


Figure 5.437: Master Airscrew Scimitar 9×5 static thrust.

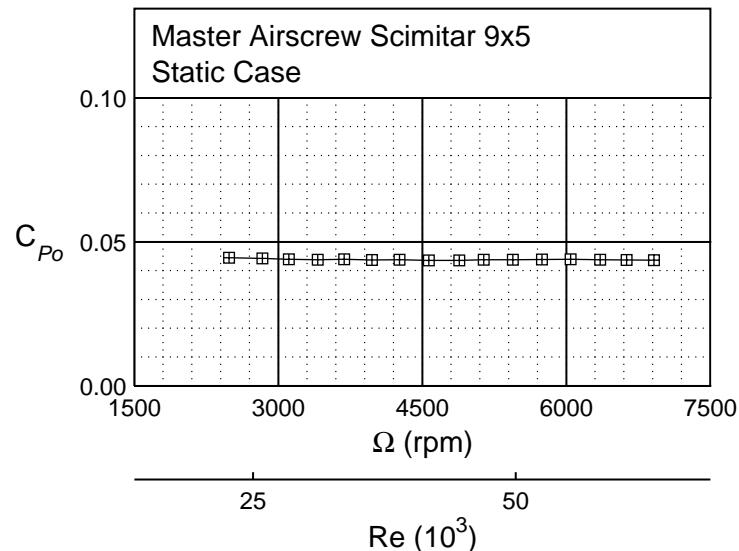
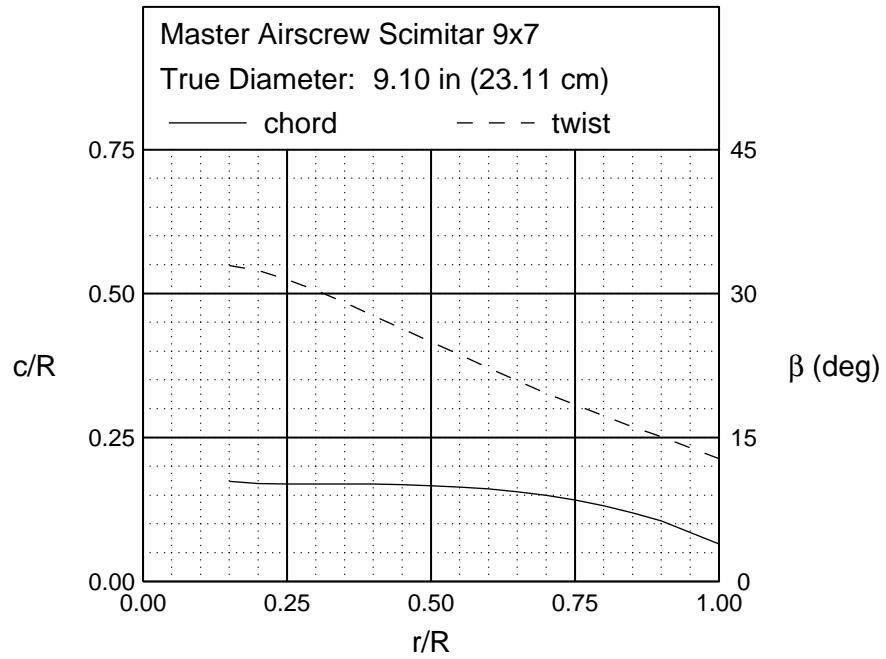


Figure 5.438: Master Airscrew Scimitar 9×5 static power.



Front View



Side View

Figure 5.439: Master Airscrew Scimitar 9×7 geometric characteristics.

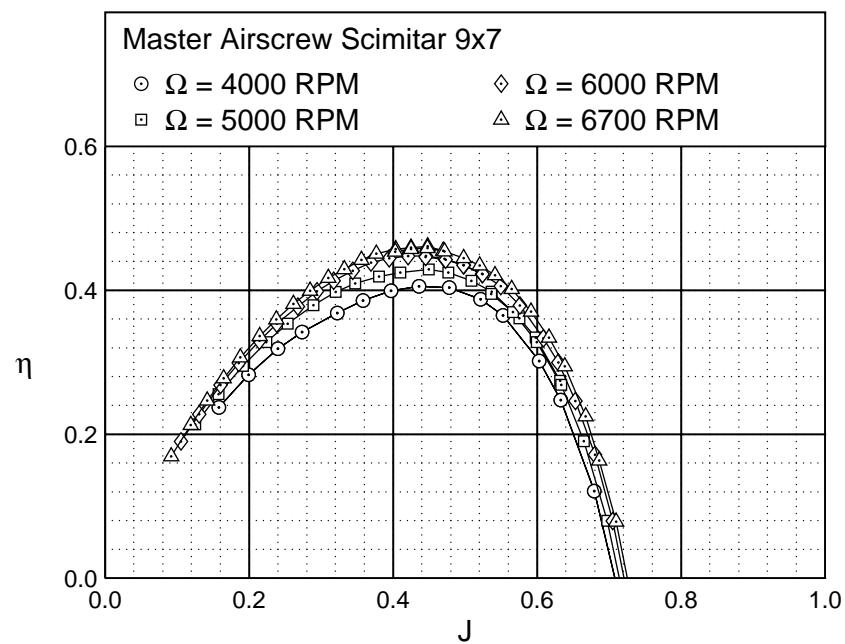


Figure 5.440: Master Airscrew Scimitar 9×7 efficiency curves.

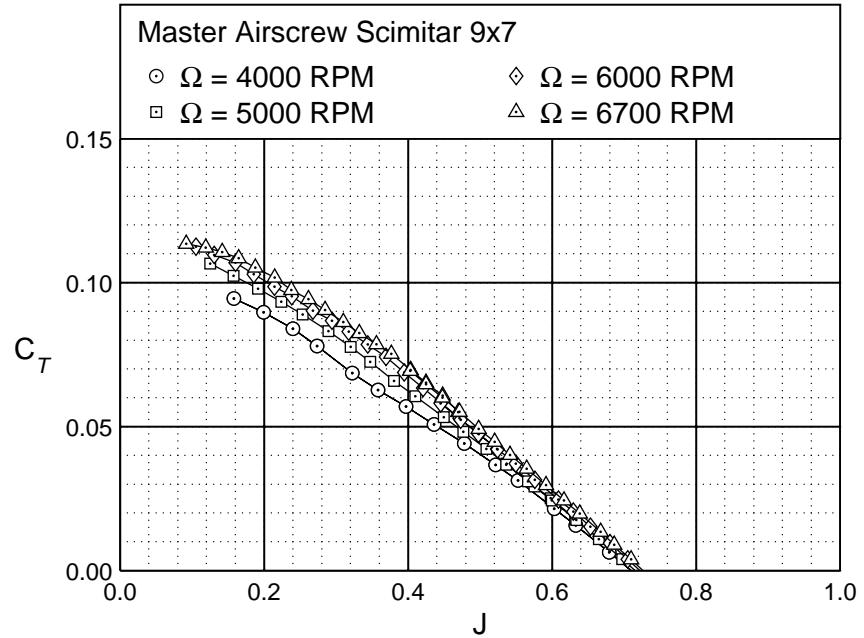


Figure 5.441: Master Airscrew Scimitar 9×7 thrust characteristics.

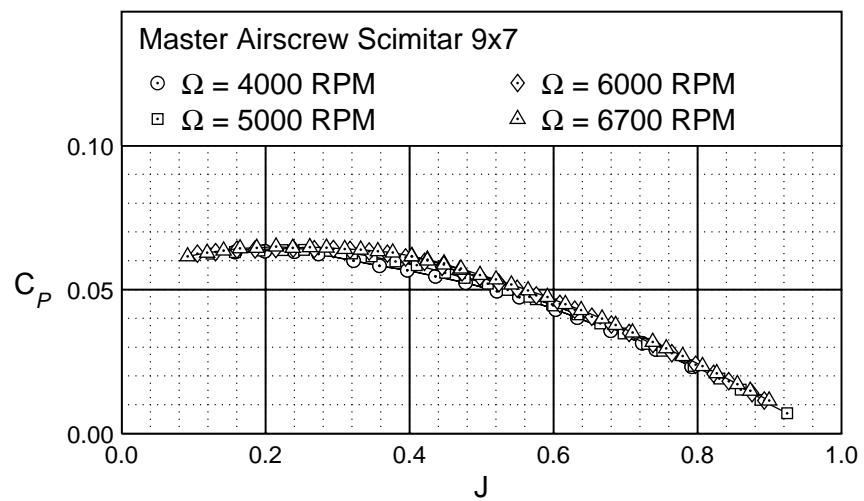


Figure 5.442: Master Airscrew Scimitar 9×7 power characteristics.

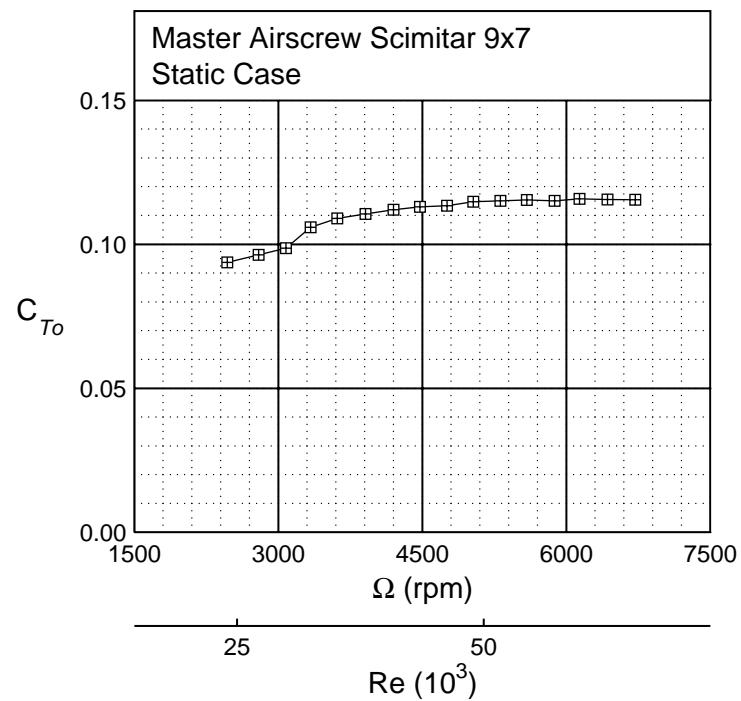


Figure 5.443: Master Airscrew Scimitar 9×7 static thrust.

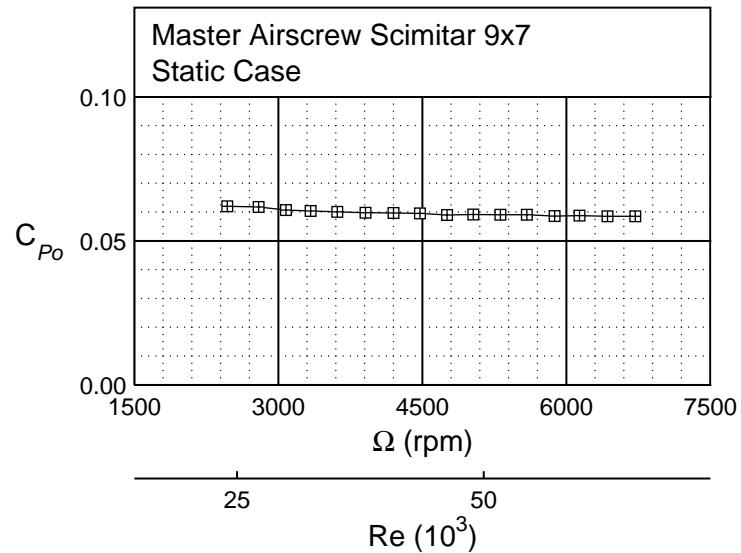
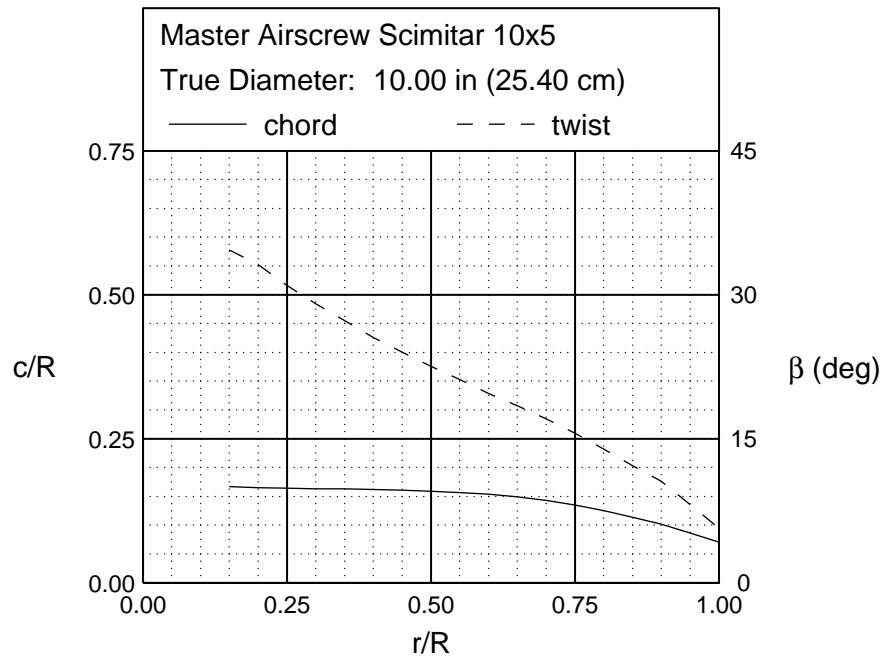


Figure 5.444: Master Airscrew Scimitar 9×7 static power.



Front View



Side View

Figure 5.445: Master Airscrew Scimitar 10×5 geometric characteristics.

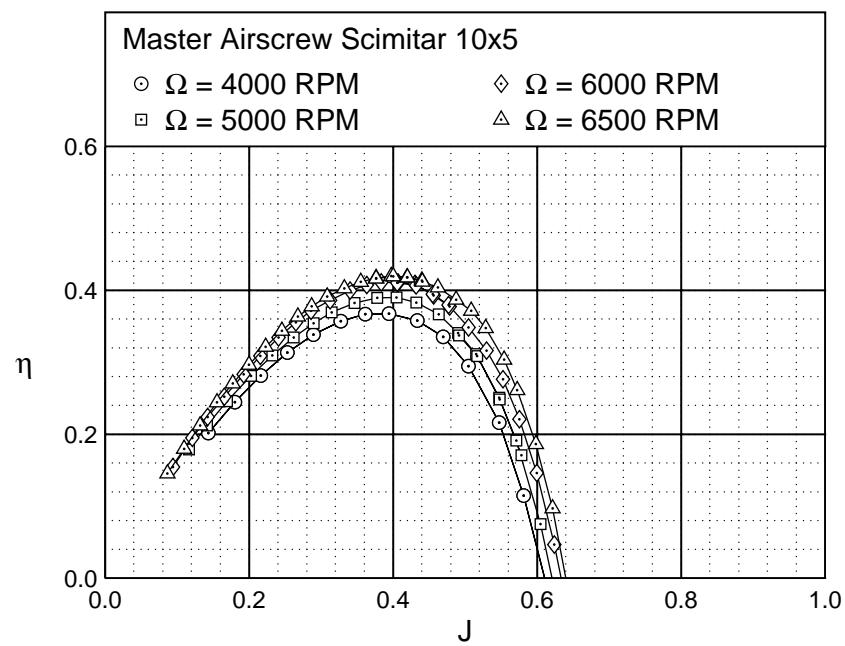


Figure 5.446: Master Airscrew Scimitar 10×5 efficiency curves.

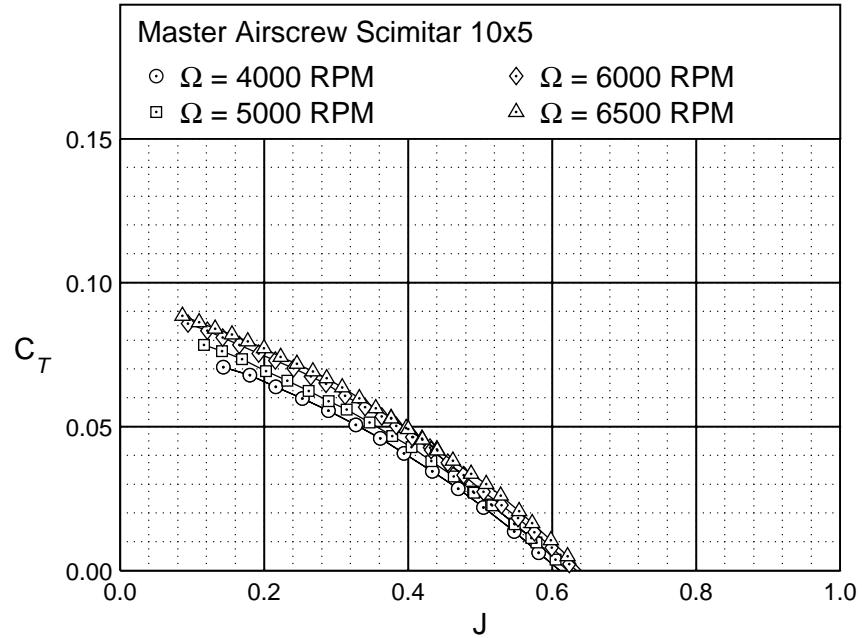


Figure 5.447: Master Airscrew Scimitar 10×5 thrust characteristics.

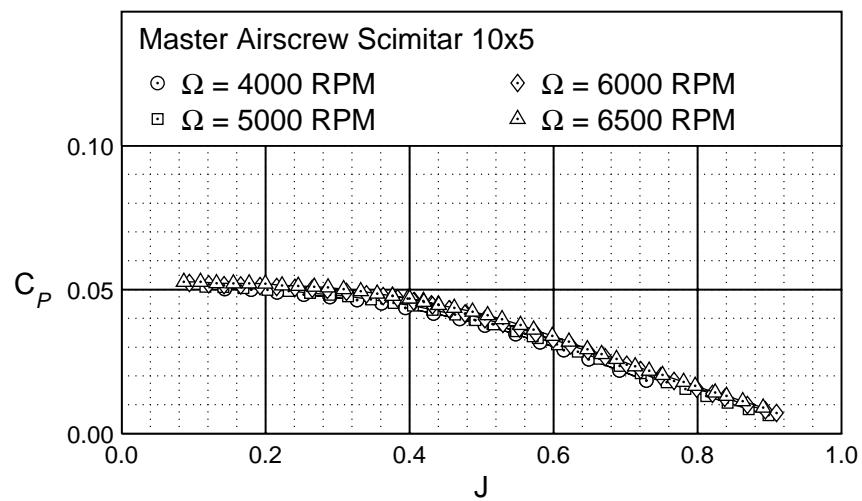


Figure 5.448: Master Airscrew Scimitar 10×5 power characteristics.

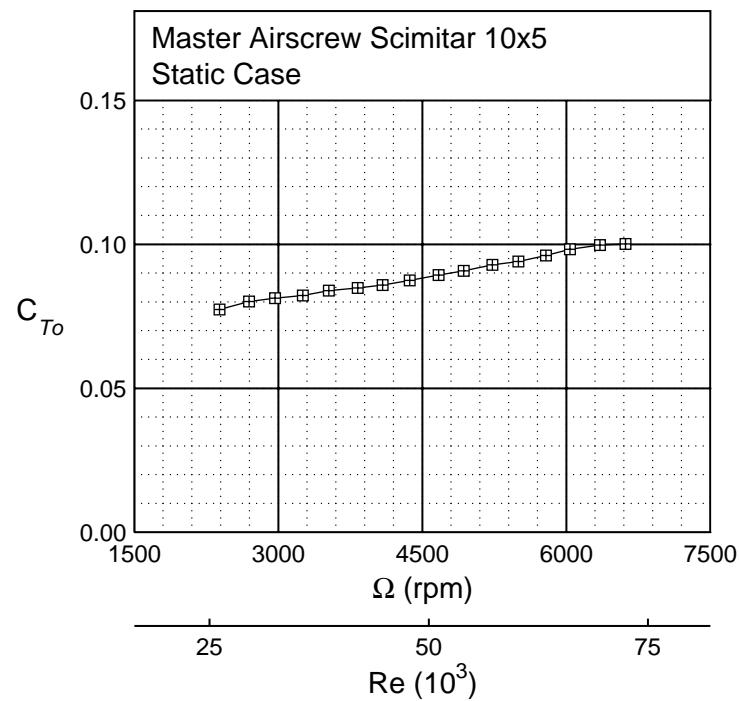


Figure 5.449: Master Airscrew Scimitar 10×5 static thrust.

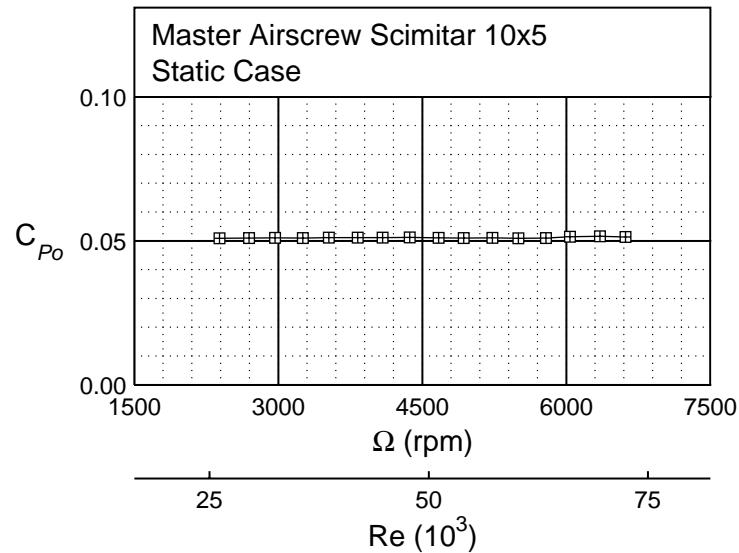
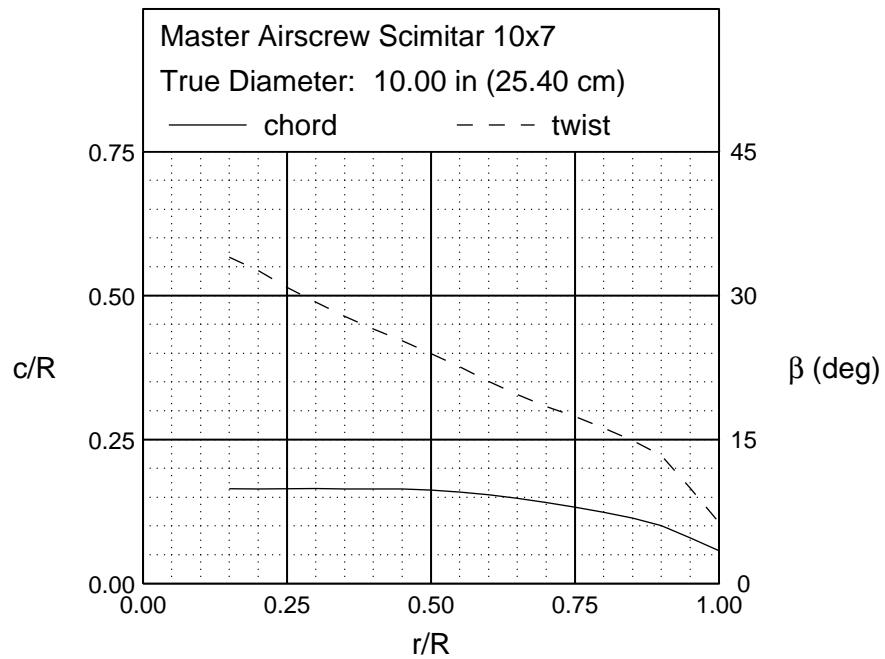


Figure 5.450: Master Airscrew Scimitar 10×5 static power.



Front View



Side View

Figure 5.451: Master Airscrew Scimitar 10×7 geometric characteristics.

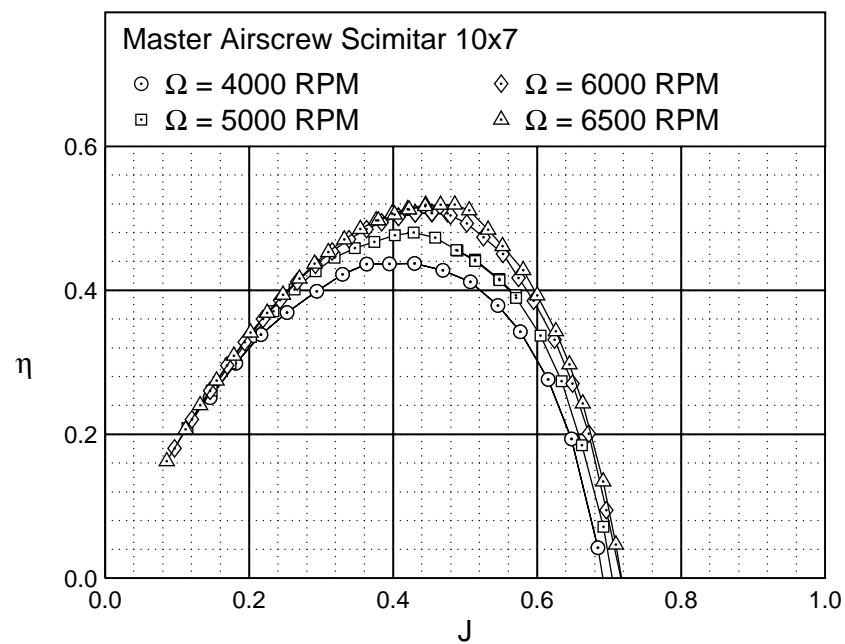


Figure 5.452: Master Airscrew Scimitar 10×7 efficiency curves.

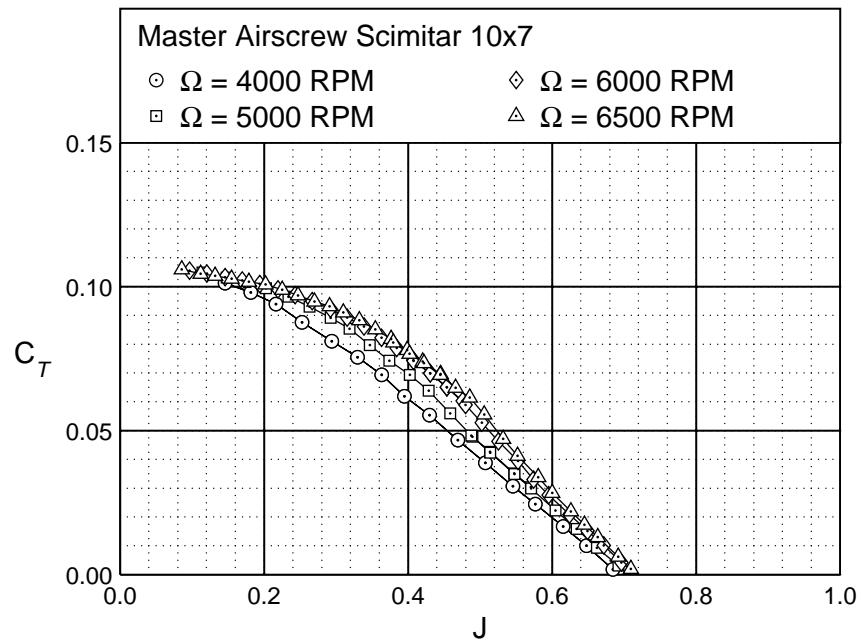


Figure 5.453: Master Airscrew Scimitar 10×7 thrust characteristics.

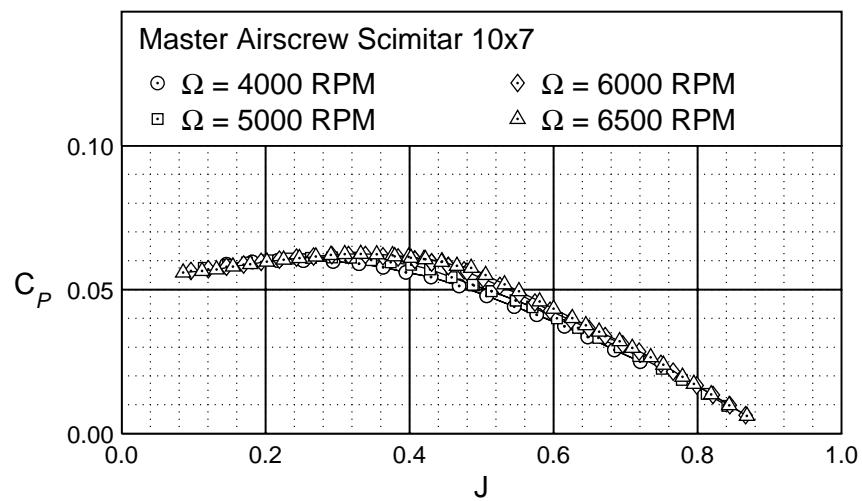


Figure 5.454: Master Airscrew Scimitar 10×7 power characteristics.

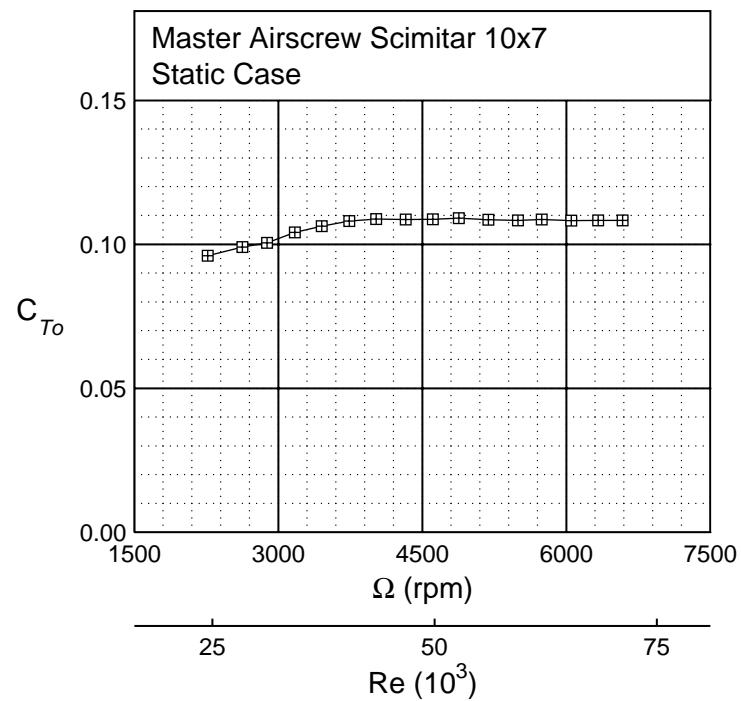


Figure 5.455: Master Airscrew Scimitar 10×7 static thrust.

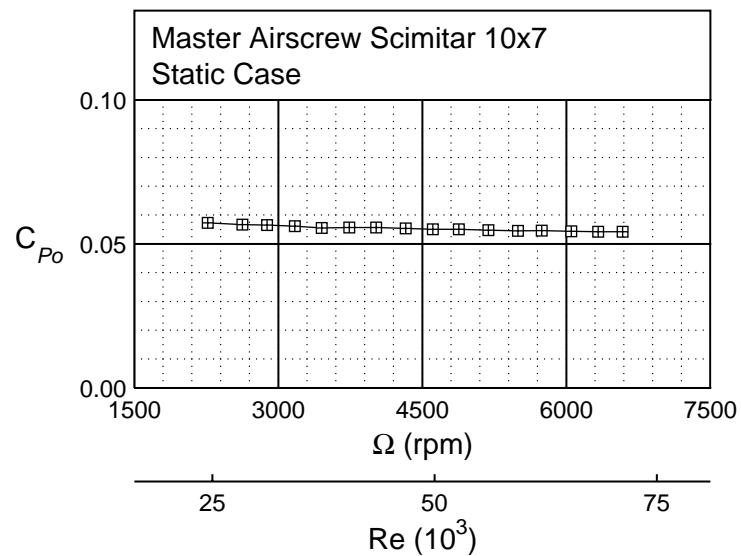
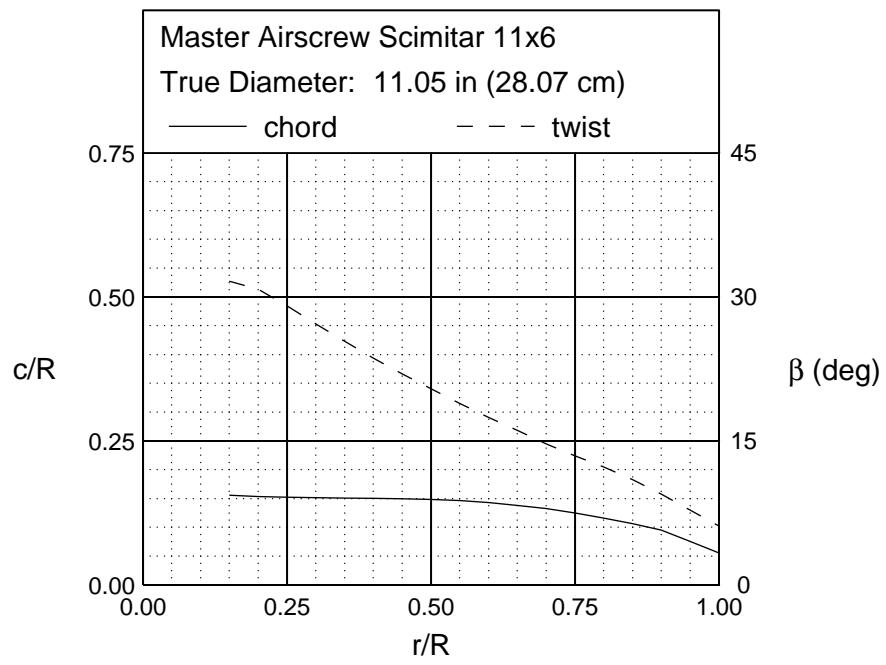


Figure 5.456: Master Airscrew Scimitar 10×7 static power.



Front View



Side View

Figure 5.457: Master Airscrew Scimitar 11×6 geometric characteristics.

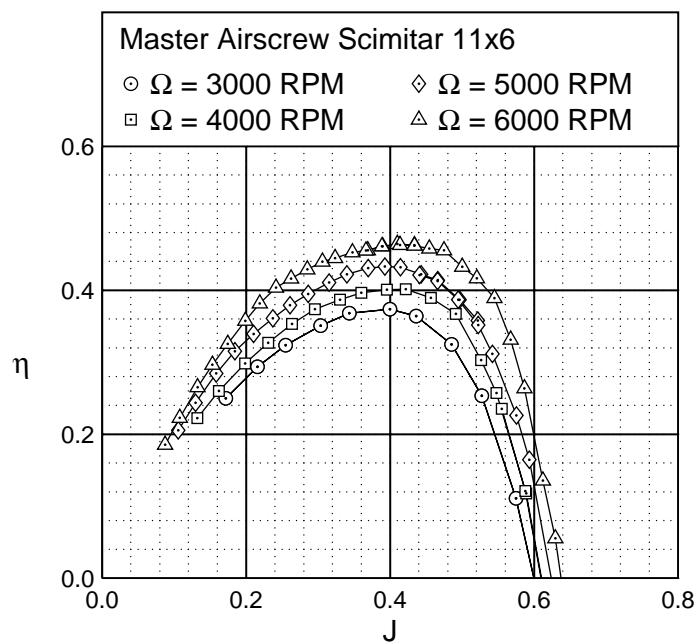


Figure 5.458: Master Airscrew Scimitar 11×6 efficiency curves.

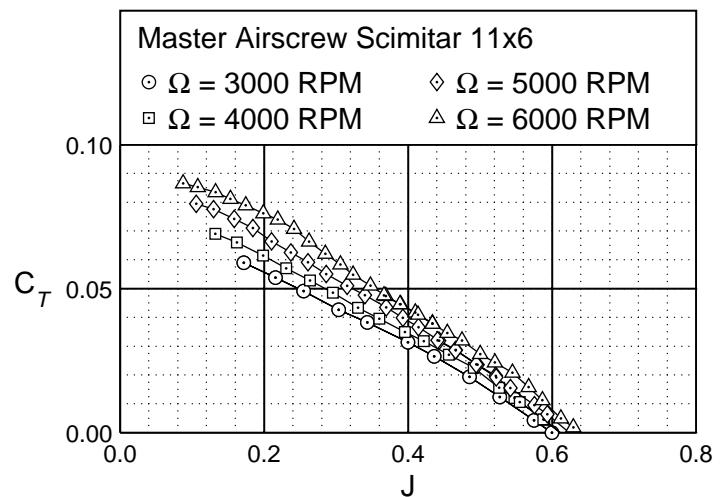


Figure 5.459: Master Airscrew Scimitar 11×6 thrust characteristics.

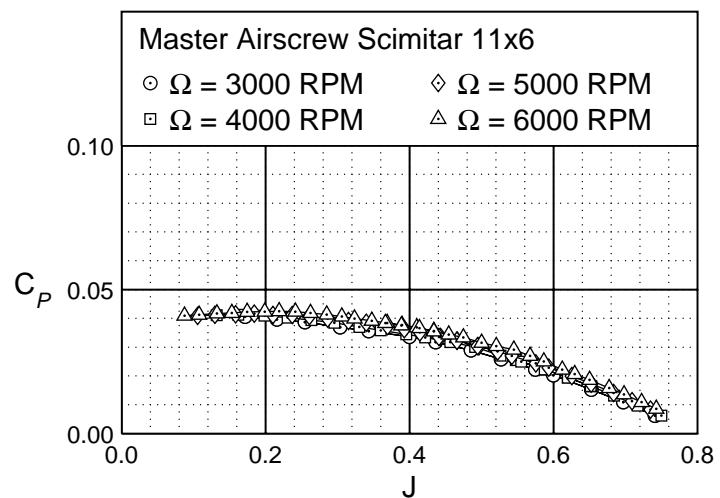


Figure 5.460: Master Airscrew Scimitar 11×6 power characteristics.

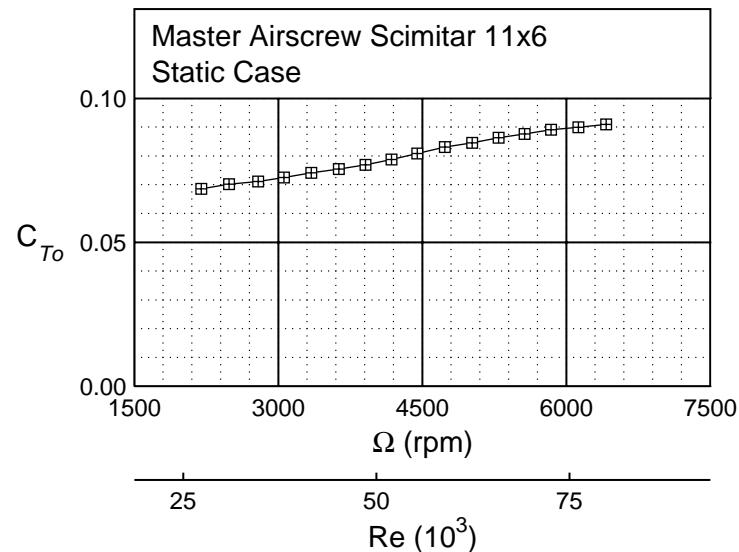


Figure 5.461: Master Airscrew Scimitar 11×6 static thrust.

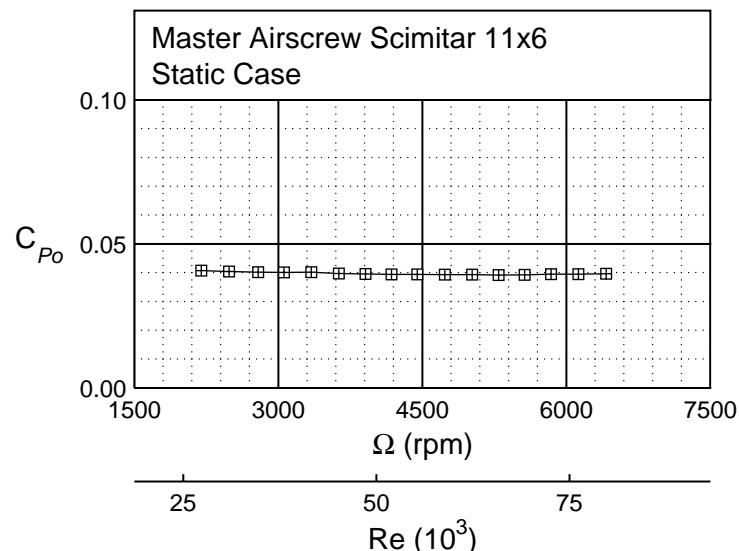
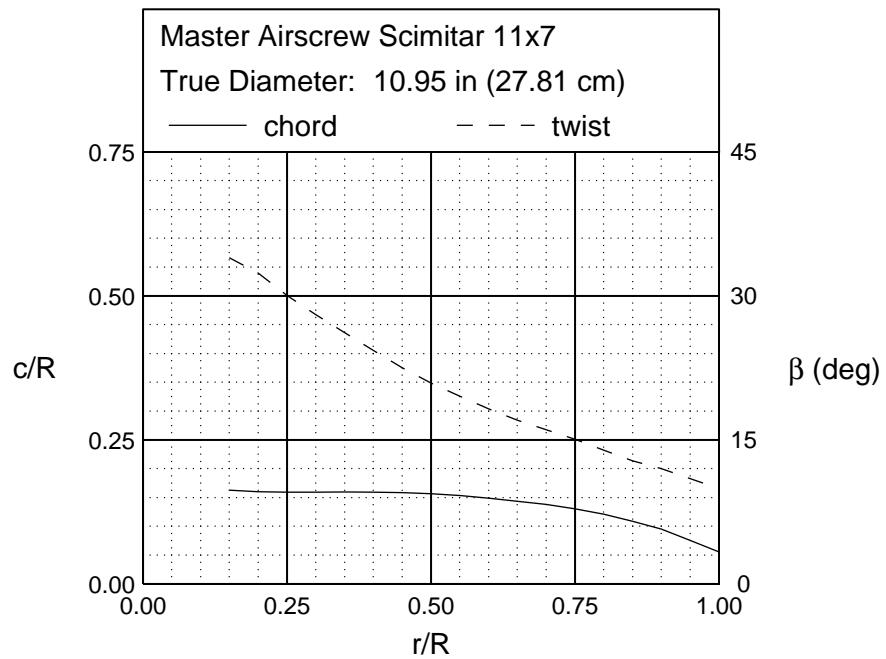


Figure 5.462: Master Airscrew Scimitar 11×6 static power.



Front View



Side View

Figure 5.463: Master Airscrew Scimitar 11×7 geometric characteristics.

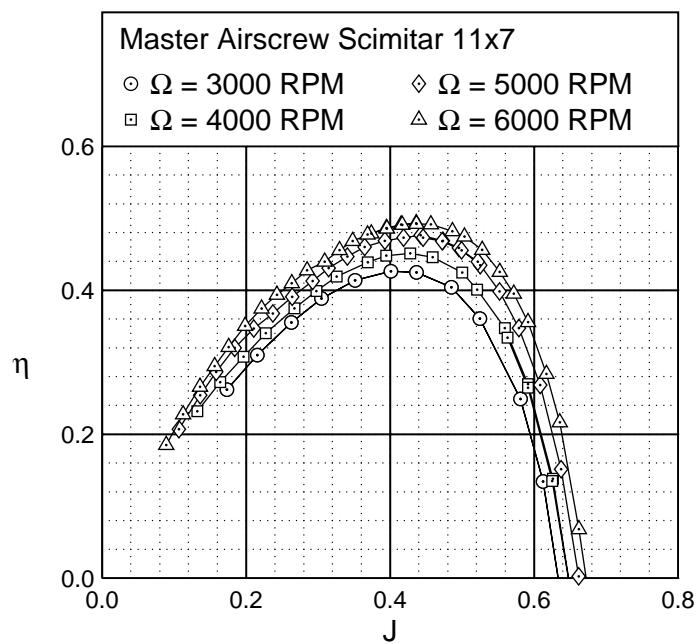


Figure 5.464: Master Airscrew Scimitar 11×7 efficiency curves.

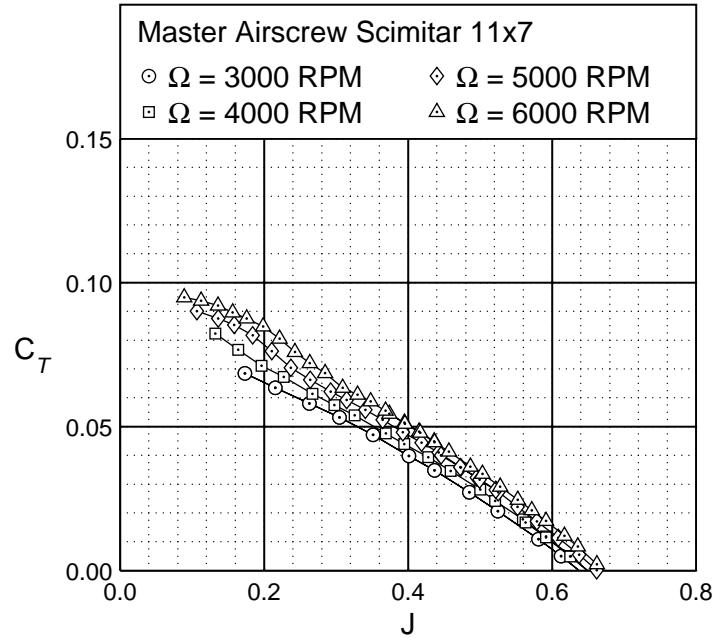


Figure 5.465: Master Airscrew Scimitar 11×7 thrust characteristics.

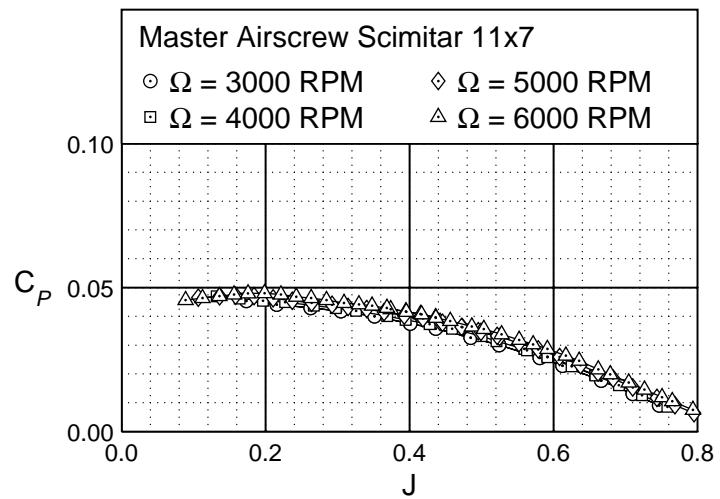


Figure 5.466: Master Airscrew Scimitar 11×7 power characteristics.

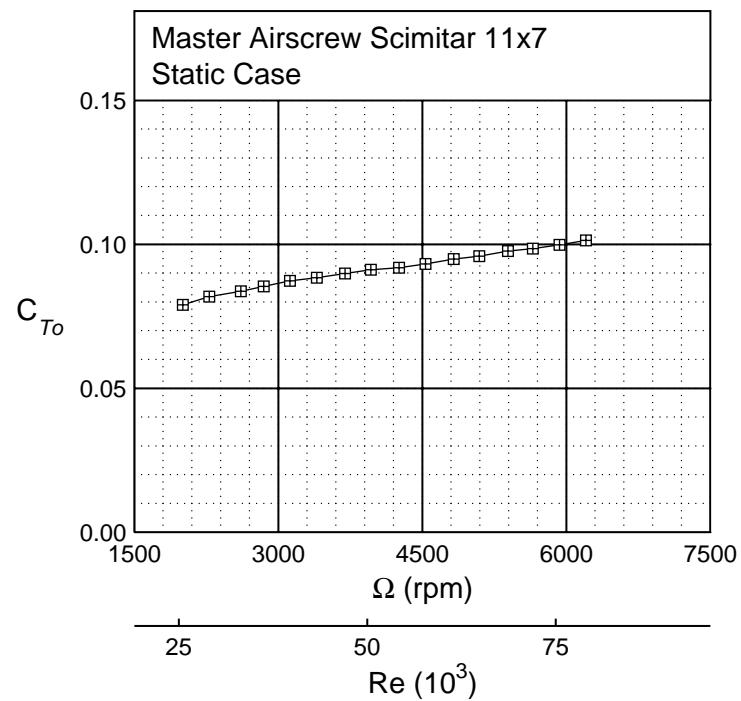


Figure 5.467: Master Airscrew Scimitar 11×7 static thrust.

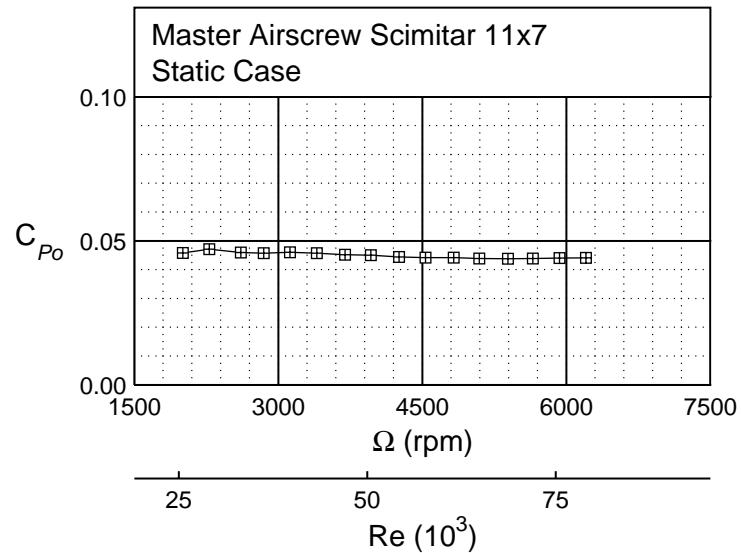
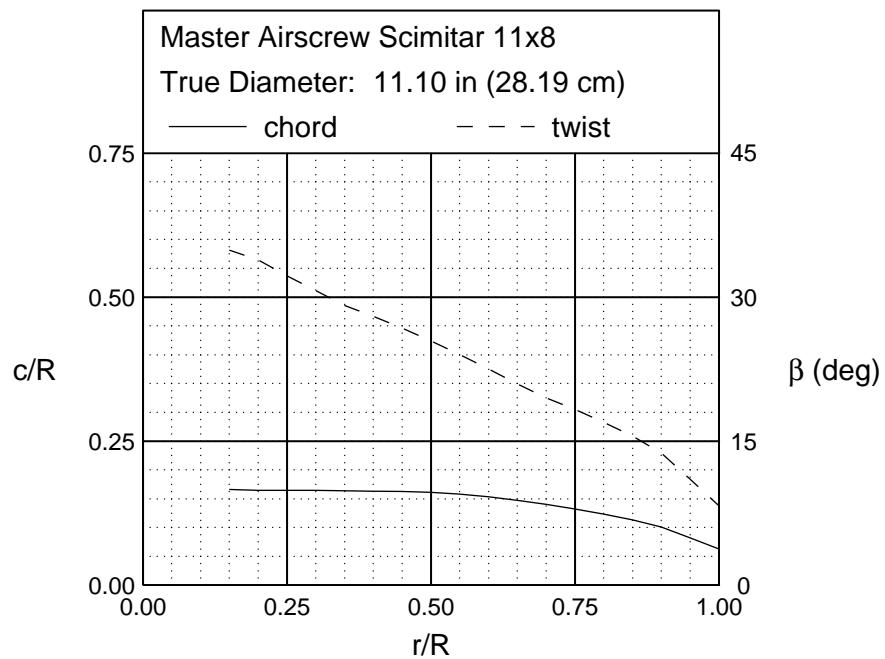


Figure 5.468: Master Airscrew Scimitar 11×7 static power.



Front View



Side View

Figure 5.469: Master Airscrew Scimitar 11×8 geometric characteristics.

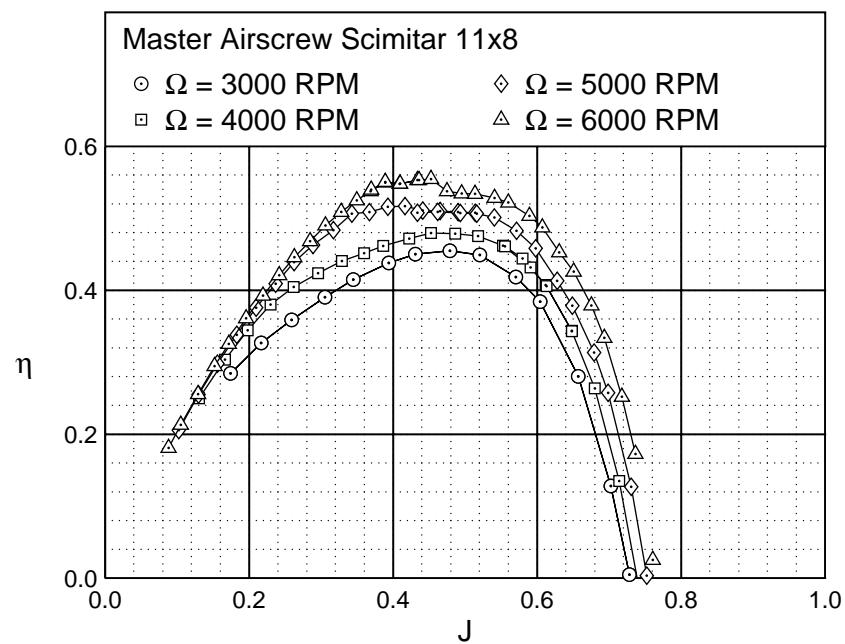


Figure 5.470: Master Airscrew Scimitar 11×8 efficiency curves.

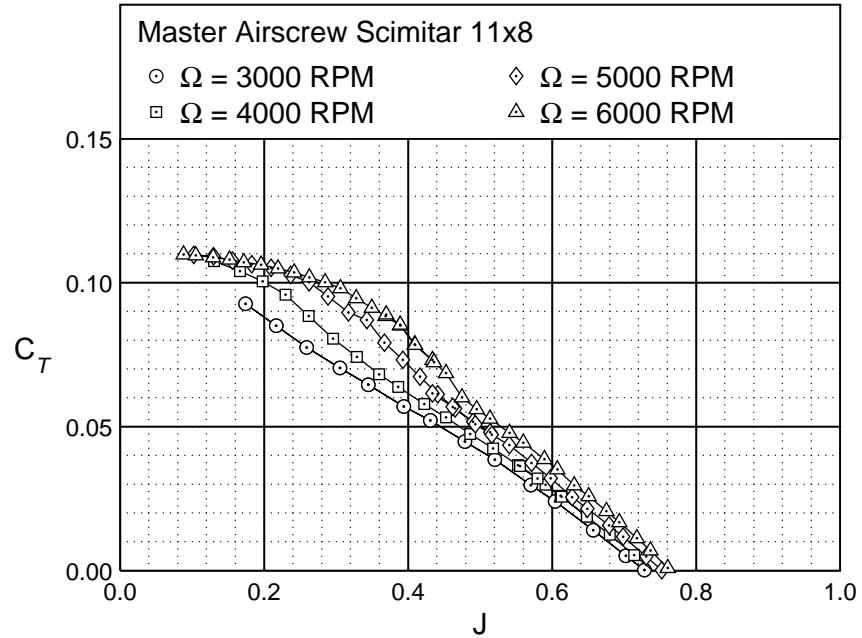


Figure 5.471: Master Airscrew Scimitar 11×8 thrust characteristics.

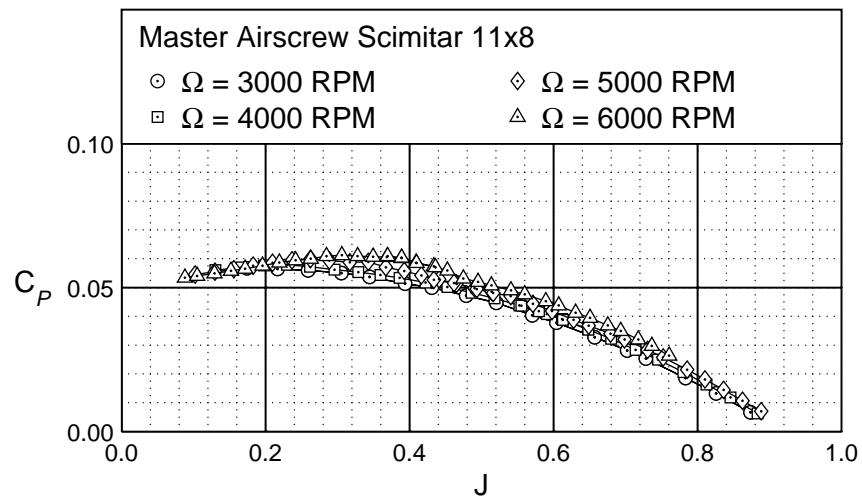


Figure 5.472: Master Airscrew Scimitar 11×8 power characteristics.

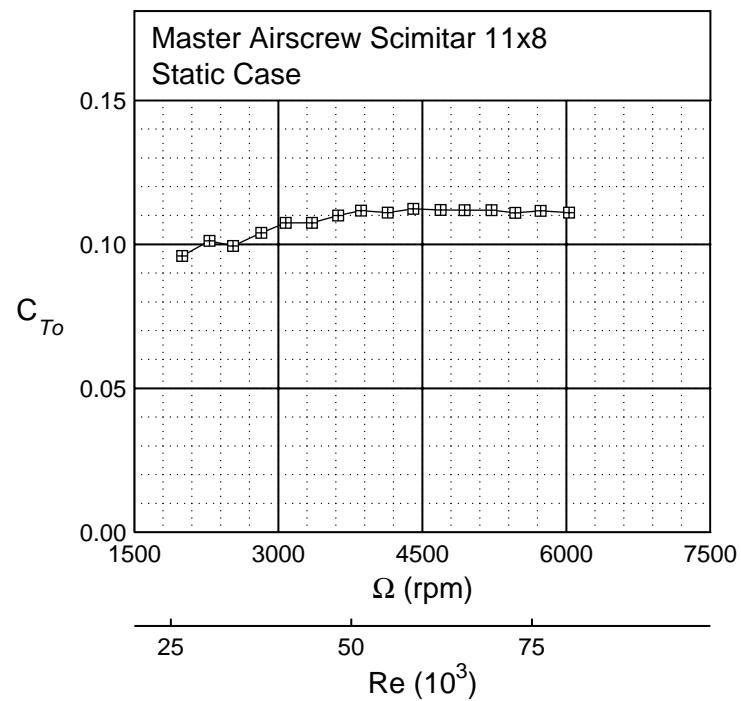


Figure 5.473: Master Airscrew Scimitar 11×8 static thrust.

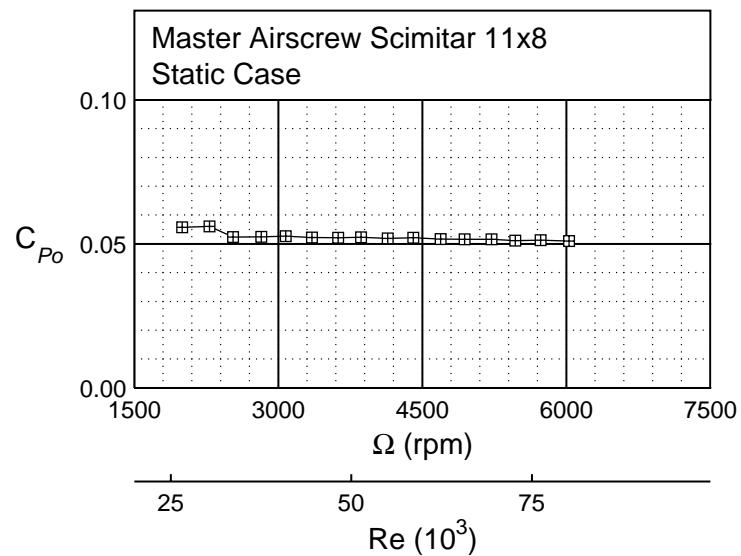


Figure 5.474: Master Airscrew Scimitar 11×8 static power.

Chapter 6

Conclusions

The work presented in the previous chapters shows that a large collection of high-quality propeller performance data has been collected. This data can be used for several purposes. Chapters 4–5 show that there are several interesting aerodynamic trends that warrant further studies. Finally, since the testing procedure has proven to be both reliable and quick, there are several options for future work.

6.1 Applying the Data

The simplest and most direct way to use the data presented here is for aircraft designers to use the data to appropriately select off-the-shelf propellers for a given aircraft design. Traditionally, model aircraft enthusiasts may have been satisfied with any propeller that supplied the required thrust and supplied satisfactory flight times. This data can be combined with motor performance characteristics to maximize the overall efficiency of a propulsion system, allowing designers to maximize either range or endurance. Given that small UAVs are being considered for a wide range of unique missions, the ability to maximize performance over a range of operating conditions will prove to be quite valuable.

Another way that this data can be used involves improving prediction capabilities. There are many methods that can be used for propeller performance predictions, one of which is PROPID, the software that was used to perform the predictions given in Section 3.3. The

results and discussion contained in Section 3.3 show that there is a need to improve prediction capabilities. Accordingly, it would be appropriate to use the data presented here to refine these methods for application to small-scale propellers.

Finally, the data can be used to improve propeller design. With the geometric and performance data presented in Chapter 5, both favorable and adverse design characteristics can be highlighted. The knowledge gained from such a survey could be used to design a propeller that maximizes efficiency and minimizes any of the unfavorable trends observed in the data. Iterating on designs, and investigating the performance improvements, will allow continued improvement to design capabilities.

6.2 Aerodynamic Analysis

The range of trends that are found in the data indicate that there could be a range of aerodynamic mechanisms contributing to the variations in performance. The suggestions made above to improve both prediction and design capabilities could be performed using empirical methods, but the improvements would be all the more useful if the aerodynamic mechanisms involved were well understood. Accordingly, a range of studies could be performed to determine which aerodynamic mechanisms are at the root of the performance variations. Given that there are so many ways that these studies could be performed, specific suggestions are not given here.

6.3 Future Testing

Although performance data for 79 propeller is presented here, there is still much that can be done to extend the effort. The propellers tested here are all fixed-pitch, non-folding, 2-bladed propellers, most of which have diameters ranging from 9 in. to 11 in. Looking at all of the options that are available for model aircraft, it is evident that only a small subset has been

tested here. Simply to expand the data base, it is suggested that the test be adapted to test a wider range of propellers, including folding and variable pitch propellers as well as a larger diameter range. Making improvements to facilitate these options and performing the tests would further expand the data base so that the above suggestions could be performed with a wider range of performance data.

Beyond testing more propellers, it is also desirable to have performance data for off-design conditions. Two such cases that should be studied are the yawed propeller and the contaminated or damaged propeller. To test the propeller in yaw, the rig would simply be placed at the desired yaw angle. However, the velocity correction methods would need be examined and adjusted appropriately to ensure their validity. Testing a damaged or contaminated propeller would involve simulating damage or contaminations that are expected to develop. The contaminations could include, but are not limited to, ice or bug accretion.

Appendix A

Tabulated Geometry

In this appendix, the geometry of the propellers tested is provided in tabular form. Table A.1 provides the thickness ratios of the hub and tip used in the digitization process, the true diameter of each propeller, and the chord length at the three-quarter radial position for all propellers tested. The thickness ratios used are not necessarily the true airfoil thickness ratios, but the thickness ratios that are used by *PropellerScanner* to correct for the optical effects of the airfoil thickness (see Ref. [31]). These were estimated simply by analyzing the propeller and estimating the apparent thickness. For every propeller tested, the normalized chord and pitch distributions are given at 18 linearly spaced radial locations ranging from the 15% radial position to the tip.

Table A.1: Summary of Propeller Geometry

Brand	Style	Designation	$(t/c)_{hub}$	$(t/c)_{tip}$	D_{true} (in)	$c_{0.75R}$ (in)
APC	Slow Flyer	9×4.7	0.06	0.06	8.90	0.886
		9×6	0.06	0.06	9.00	0.905
		10×4.7	0.06	0.06	10.00	0.985
		10×7	0.06	0.06	10.05	0.990
		11×3.8	0.06	0.06	11.00	1.111
		11×4.7	0.06	0.06	11.00	1.095
		11×7	0.06	0.06	11.00	1.111
APC	Sport	9×5	0.12	0.08	9.00	0.657
		9×7	0.12	0.08	9.00	0.662
		10×6	0.12	0.08	10.00	0.770
		10×8	0.12	0.08	10.00	0.775
		11×4	0.12	0.08	11.00	0.787
		11×5	0.12	0.08	11.00	0.781
		11×6	0.12	0.08	11.00	0.792
		11×7	0.12	0.08	11.00	0.787
		11×8	0.12	0.08	11.00	0.787
		11×9	0.12	0.08	11.00	0.792
APC	120 Pattern	14×13	0.12	0.08	14.00	1.008
APC	Thin Electric	9×4.5	0.12	0.06	9.00	0.675
		9×6	0.12	0.06	9.00	0.675
		10×5	0.12	0.06	10.00	0.640
		10×7	0.12	0.06	10.00	0.645
		11×5.5	0.12	0.06	11.00	0.666

Table A.1: Summary of Propellers Geometry (*continued*)

Brand	Style	Designation	$(t/c)_{hub}$	$(t/c)_{tip}$	D_{true} (in)	$c_{0.75R}$ (in)
Graupner	CAM Prop	11×7	0.12	0.06	11.00	0.688
		11×8	0.12	0.06	11.00	0.677
		11×8.5	0.12	0.06	11.00	0.677
		11×10	0.12	0.06	11.00	0.688
		14×12	0.12	0.06	14.00	0.721
		17×12	0.12	0.06	17.00	0.884
		19×12	0.12	0.06	19.00	0.969
Graupner	CAM Slim	9×4	0.12	0.06	9.10	0.551
		9×6	0.12	0.06	9.20	0.616
		10×6	0.12	0.06	10.00	0.650
		10×8	0.12	0.06	10.00	0.675
		11×4	0.12	0.06	11.15	0.680
		11×6	0.12	0.06	11.20	0.666
		11×8	0.12	0.06	11.20	0.717
Graupner	Slim	9×6	0.06	0.06	9.15	0.769
		10×6	0.06	0.06	9.90	0.747
		10×8	0.06	0.06	9.90	0.752
Graupner	Slim	9×5	0.06	0.06	9.15	0.737
Graupner	Super Nylon	9×5	0.08	0.08	9.05	0.796
		9×7	0.08	0.08	9.05	0.787
		10×6	0.08	0.08	9.85	0.832
		10×7	0.08	0.08	9.85	0.822
		11×6	0.08	0.08	11.05	0.928

Table A.1: Summary of Propellers Geometry (*continued*)

Brand	Style	Designation	$(t/c)_{hub}$	$(t/c)_{tip}$	D_{true} (in)	$c_{0.75R}$ (in)
		11×8	0.08	0.08	11.10	0.944
GWS	Direct Drive	9×5	0.06	0.06	9.00	0.675
		10×6	0.06	0.06	10.00	0.695
		11×7	0.06	0.06	11.00	0.820
GWS	Slow Flyer	9×4.7	0.06	0.06	9.05	0.891
		9×7	0.06	0.06	9.00	0.895
		10×4.7	0.06	0.06	10.10	1.040
		10×8	0.06	0.06	10.05	1.005
		11×4.7	0.06	0.06	11.00	1.122
		11×8	0.06	0.06	11.00	1.084
Kyosho		9×6	0.12	0.08	9.00	0.599
		10×6	0.12	0.08	10.00	0.675
		10×7	0.12	0.08	10.00	0.680
		11×7	0.12	0.08	11.00	0.737
		11×9	0.12	0.08	11.00	0.732
Master Airscrew	Electric	9×6	0.08	0.08	9.10	0.692
		10×7	0.08	0.08	10.10	0.727
		11×7	0.08	0.08	11.10	0.816
Master Airscrew	G/F	9×4	0.12	0.06	9.00	0.644
		9×6	0.12	0.06	9.00	0.635
		10×6	0.12	0.06	10.10	0.777
		10×8	0.12	0.06	10.10	0.788
		11×4	0.12	0.06	11.00	0.781

Table A.1: Summary of Propellers Geometry (*continued*)

Brand	Style	Designation	$(t/c)_{hub}$	$(t/c)_{tip}$	D_{true} (in)	$c_{0.75R}$ (in)
Master Airscrew	Scimitar	11×6	0.12	0.06	11.00	0.781
		11×7	0.12	0.06	11.00	0.770
		11×8	0.12	0.06	11.00	0.787
Master Airscrew	Scimitar	9×5	0.12	0.06	9.10	0.605
		9×7	0.12	0.06	9.10	0.642
		10×5	0.12	0.06	10.00	0.675
		10×7	0.12	0.06	10.00	0.665
		11×6	0.12	0.06	11.05	0.691
		11×7	0.12	0.06	10.95	0.712
		11×8	0.12	0.06	11.10	0.733

APC		
Slow Flyer		
9×4.7		
r/R	c/R	β
0.15	0.127	27.54
0.20	0.135	25.28
0.25	0.158	26.08
0.30	0.178	25.47
0.35	0.195	24.07
0.40	0.209	22.18
0.45	0.219	20.00
0.50	0.225	18.18
0.55	0.227	16.38
0.60	0.226	14.83
0.65	0.221	13.63
0.70	0.212	12.56
0.75	0.199	11.56
0.80	0.182	10.65
0.85	0.161	9.68
0.90	0.135	8.51
0.95	0.097	6.72
1.00	0.058	4.89

APC		
Slow Flyer		
10×7		
r/R	c/R	β
0.15	0.109	34.86
0.20	0.132	37.60
0.25	0.155	36.15
0.30	0.175	33.87
0.35	0.192	31.25
0.40	0.206	28.48
0.45	0.216	25.60
0.50	0.222	22.79
0.55	0.225	20.49
0.60	0.224	18.70
0.65	0.219	17.14
0.70	0.210	15.64
0.75	0.197	14.38
0.80	0.180	13.11
0.85	0.159	11.83
0.90	0.133	10.65
0.95	0.092	9.53
1.00	0.049	8.43

APC		
Sport Propeller		
9×5		
r/R	c/R	β
0.15	0.160	31.68
0.20	0.146	34.45
0.25	0.144	35.93
0.30	0.143	33.33
0.35	0.143	29.42
0.40	0.146	26.25
0.45	0.151	23.67
0.50	0.155	21.65
0.55	0.158	20.02
0.60	0.160	18.49
0.65	0.159	17.06
0.70	0.155	15.95
0.75	0.146	14.87
0.80	0.133	13.82
0.85	0.114	12.77
0.90	0.089	11.47
0.95	0.056	10.15
1.00	0.022	8.82

APC		
Sport Propeller		
9×7		
r/R	c/R	β
0.15	0.180	35.61
0.20	0.158	39.44
0.25	0.157	42.45
0.30	0.156	41.18
0.35	0.154	37.35
0.40	0.155	33.74
0.45	0.157	30.77
0.50	0.160	27.98
0.55	0.162	25.54
0.60	0.162	23.41
0.65	0.161	21.87
0.70	0.156	20.17
0.75	0.147	18.87
0.80	0.134	17.76
0.85	0.115	16.05
0.90	0.091	14.17
0.95	0.057	12.29
1.00	0.024	10.41

APC		
Sport Propeller		
10×6		
r/R	c/R	β
0.15	0.169	31.55
0.20	0.161	37.27
0.25	0.157	39.26

0.30	0.153	36.43
0.35	0.152	33.01
0.40	0.154	29.56
0.45	0.157	26.23
0.50	0.161	23.58
0.55	0.164	21.48
0.60	0.166	19.76
0.65	0.166	18.32
0.70	0.162	17.05
0.75	0.154	15.74
0.80	0.140	14.50
0.85	0.121	13.58
0.90	0.094	12.45
0.95	0.057	10.75
1.00	0.019	9.00

0.70	0.153	11.63
0.75	0.143	10.69
0.80	0.129	9.80
0.85	0.109	8.69
0.90	0.084	7.32
0.95	0.051	6.29
1.00	0.017	5.29

**APC
Sport Propeller
11×7**

r/R	c/R	β
0.15	0.167	31.46
0.20	0.166	36.57
0.25	0.167	39.02
0.30	0.164	37.25
0.35	0.162	34.15
0.40	0.161	31.09
0.45	0.162	28.14
0.50	0.163	25.58
0.55	0.163	23.49
0.60	0.162	21.58
0.65	0.159	19.88
0.70	0.153	18.28
0.75	0.143	16.85
0.80	0.129	15.40
0.85	0.110	14.01
0.90	0.084	12.65
0.95	0.051	11.03
1.00	0.017	9.39

**APC
Sport Propeller
10×8**

r/R	c/R	β
0.15	0.163	34.08
0.20	0.154	42.10
0.25	0.151	45.25
0.30	0.147	42.30
0.35	0.146	38.20
0.40	0.149	34.22
0.45	0.155	30.80
0.50	0.160	27.93
0.55	0.164	25.43
0.60	0.167	23.38
0.65	0.166	21.63
0.70	0.163	19.99
0.75	0.155	18.47
0.80	0.141	16.94
0.85	0.122	15.53
0.90	0.096	13.72
0.95	0.059	11.19
1.00	0.021	8.60

**APC
Sport Propeller
11×5**

r/R	c/R	β
0.15	0.167	27.64
0.20	0.165	30.17
0.25	0.165	31.50
0.30	0.162	29.54
0.35	0.160	26.43
0.40	0.160	23.57
0.45	0.161	21.03
0.50	0.162	18.92
0.55	0.162	17.14
0.60	0.161	15.69
0.65	0.158	14.44
0.70	0.152	13.29
0.75	0.142	12.44
0.80	0.128	11.32
0.85	0.109	10.27
0.90	0.083	9.07
0.95	0.050	7.28
1.00	0.015	5.42

**APC
Sport Propeller
11×6**

r/R	c/R	β
0.15	0.167	33.69
0.20	0.166	39.30
0.25	0.166	42.13
0.30	0.164	40.42
0.35	0.161	37.05
0.40	0.161	33.81
0.45	0.162	30.80
0.50	0.162	27.97
0.55	0.162	25.52
0.60	0.162	23.28
0.65	0.159	21.40
0.70	0.152	19.68
0.75	0.143	18.01
0.80	0.129	16.52
0.85	0.109	15.07
0.90	0.084	13.26
0.95	0.051	11.87
1.00	0.017	10.54

**APC
Sport Propeller
11×4**

r/R	c/R	β
0.15	0.170	28.19
0.20	0.169	30.01
0.25	0.168	30.46
0.30	0.164	27.59
0.35	0.162	23.97
0.40	0.161	21.02
0.45	0.162	18.63
0.50	0.163	16.77
0.55	0.163	15.23
0.60	0.161	13.88
0.65	0.158	12.74

**APC
Sport Propeller
11×9**

r/R	c/R	β
0.15	0.167	36.20
0.20	0.165	42.16
0.25	0.167	45.18

0.70	0.167	13.45	APC	0.30	0.176	36.13	0.70	0.138	19.52
0.75	0.150	12.56	Thin Electric	0.35	0.185	31.59	0.75	0.123	18.35
0.80	0.133	12.09	10×7	0.40	0.189	28.07	0.80	0.108	17.33
0.85	0.116	11.25		0.45	0.189	25.32	0.85	0.093	16.38
0.90	0.099	10.46	r/R c/R β	0.50	0.185	23.02	0.90	0.079	15.32
0.95	0.074	9.68	0.15 0.138 37.86	0.55	0.177	21.04	0.95	0.060	14.19
1.00	0.049	8.90	0.20 0.154 45.82	0.60	0.167	19.62	1.00	0.041	13.06
			0.25 0.175 44.19	0.65	0.154	18.47			
<hr/>							<hr/>		
APC				0.30	0.190	38.35	0.70	0.140	17.38
Thin Electric				0.35	0.198	33.64	0.75	0.125	16.28
9×6				0.40	0.202	29.90	0.80	0.110	15.33
			r/R c/R β	0.45	0.200	27.02	0.85	0.095	14.58
0.15	0.141	31.67	0.50 0.195 24.67	0.90	0.081	13.77	0.90	0.062	13.05
0.20	0.147	37.59	0.55 0.186 22.62	1.00	0.043	12.34	1.00	0.043	12.34
0.25	0.183	38.78	0.60 0.174 20.88						
0.30	0.207	35.90	0.65 0.161 19.36						
0.35	0.218	32.07	0.70 0.145 17.98						
0.40	0.223	28.50	0.75 0.129 16.74						
0.45	0.222	25.81	0.80 0.112 15.79						
0.50	0.217	23.58	0.85 0.096 14.64						
0.55	0.209	21.66	0.90 0.081 13.86						
0.60	0.197	19.99	0.95 0.061 12.72						
0.65	0.183	18.58	1.00 0.040 11.53						
							<hr/>		
APC							<hr/>		
Thin Electric							<hr/>		
11×8							<hr/>		
			r/R c/R β	0.30	0.178	38.98	0.70	0.141	22.83
			0.15 0.127 44.62	0.35	0.187	34.30	0.75	0.125	21.50
			0.20 0.146 50.28	0.40	0.190	30.54	0.80	0.110	20.22
			0.25 0.164 44.89	0.45	0.190	27.47	0.85	0.096	19.22
			0.30 0.178 38.98	0.50	0.185	25.01	0.90	0.082	18.26
			0.35 0.187 34.30	0.55	0.176	23.02	0.95	0.065	17.57
			0.40 0.190 30.54	0.60	0.165	21.30	1.00	0.047	16.89
			0.45 0.190 27.47	0.65	0.152	19.82			
<hr/>							<hr/>		
APC							<hr/>		
Thin Electric							<hr/>		
11×5.5							<hr/>		
			r/R c/R β	0.30	0.180	28.76	0.70	0.138	18.53
			0.15 0.124 41.11	0.35	0.188	24.78	0.75	0.123	17.30
			0.20 0.146 41.01	0.40	0.190	21.70	0.80	0.107	16.23
			0.25 0.167 34.01	0.45	0.189	19.40	0.85	0.092	15.17
			0.50 0.184 17.65	0.50	0.184	17.65	0.90	0.078	14.37
			0.55 0.175 16.19	0.55	0.175	16.19	0.95	0.059	13.49
			0.60 0.164 15.03	0.60	0.164	15.03	1.00	0.039	12.60
			0.65 0.151 14.10	0.70	0.136	13.26			
			0.75 0.121 12.61	0.75	0.121	12.61			
			0.80 0.105 12.00	0.80	0.105	12.00			
			0.85 0.090 11.34	0.85	0.090	11.34			
			0.90 0.077 10.55	0.90	0.077	10.55			
			0.95 0.053 9.33	0.95	0.053	9.33			
			1.00 0.029 8.07	1.00	0.029	8.07			
							<hr/>		
<hr/>							<hr/>		
APC							<hr/>		
Thin Electric							<hr/>		
11×8.5							<hr/>		
			r/R c/R β	0.30	0.179	40.31	0.70	0.116	21.07
			0.15 0.127 46.08	0.35	0.188	35.62	0.75	0.103	19.55
			0.20 0.147 51.71	0.40	0.191	31.77	0.80	0.090	18.27
			0.25 0.164 46.18	0.45	0.190	28.70	0.85	0.077	17.21
			0.30 0.179 40.31	0.50	0.186	26.19	0.90	0.066	16.54
			0.35 0.188 35.62	0.55	0.177	24.10	0.95	0.051	14.29
			0.40 0.191 31.77	0.60	0.166	22.37	1.00	0.036	11.88
			0.45 0.190 28.70	0.65	0.153	20.85			

APC
Thin Electric
17×12

r/R	c/R	β
0.15	0.110	31.63
0.20	0.123	40.01
0.25	0.138	42.77
0.30	0.149	39.88
0.35	0.156	35.26
0.40	0.159	31.25
0.45	0.158	27.97
0.50	0.154	25.32
0.55	0.148	23.11
0.60	0.139	21.21
0.65	0.129	19.58
0.70	0.117	18.33
0.75	0.104	17.35
0.80	0.092	16.57
0.85	0.080	15.86
0.90	0.068	15.36
0.95	0.053	14.81
1.00	0.038	14.25

APC
Thin Electric
19×12

r/R	c/R	β
0.15	0.112	34.11
0.20	0.126	42.88
0.25	0.141	40.83
0.30	0.152	35.05
0.35	0.158	30.43
0.40	0.160	26.83
0.45	0.159	23.97
0.50	0.154	21.64
0.55	0.147	19.73
0.60	0.138	17.93
0.65	0.127	16.26
0.70	0.114	14.95
0.75	0.102	13.81
0.80	0.089	12.98
0.85	0.077	12.19
0.90	0.065	11.81
0.95	0.049	11.25
1.00	0.032	10.66

Graupner
CAM Prop
9×4

r/R	c/R	β
0.15	0.163	36.40
0.20	0.157	37.31
0.25	0.156	35.28

0.30	0.156	31.16
0.35	0.155	26.88
0.40	0.152	23.30
0.45	0.148	20.25
0.50	0.144	17.70
0.55	0.140	15.78
0.60	0.136	14.18
0.65	0.131	12.96
0.70	0.127	11.77
0.75	0.121	10.67
0.80	0.114	9.63
0.85	0.105	8.65
0.90	0.090	7.33
0.95	0.062	6.84
1.00	0.034	6.39

0.70	0.135	16.17
0.75	0.130	15.09
0.80	0.124	13.95
0.85	0.114	12.83
0.90	0.099	12.03
0.95	0.071	11.44
1.00	0.042	10.85

Graupner
CAM Prop
11×6

r/R	c/R	β
0.15	0.157	36.45
0.20	0.154	39.48
0.25	0.152	38.70
0.30	0.150	34.38
0.35	0.147	29.77
0.40	0.144	25.97
0.45	0.140	22.79
0.50	0.136	20.05
0.55	0.133	17.84
0.60	0.129	16.14
0.65	0.126	14.59
0.70	0.123	13.14
0.75	0.119	12.01
0.80	0.113	10.99
0.85	0.105	9.94
0.90	0.091	8.43
0.95	0.062	7.28
1.00	0.032	6.17

Graupner
CAM Prop
11×8

r/R	c/R	β
0.15	0.157	41.39
0.20	0.152	46.10
0.25	0.151	46.70
0.30	0.152	42.95

Graupner
CAM Prop
11×4

r/R	c/R	β
0.15	0.156	30.27
0.20	0.152	31.30
0.25	0.152	30.03
0.30	0.154	27.27
0.35	0.154	23.93
0.40	0.152	20.70
0.45	0.149	17.91
0.50	0.145	15.74
0.55	0.141	14.02
0.60	0.136	12.63
0.65	0.132	11.47
0.70	0.128	10.64
0.75	0.122	9.76
0.80	0.116	8.64
0.85	0.110	15.03
0.90	0.095	14.01
0.95	0.067	13.03
1.00	0.038	12.06

Graupner
CAM Slim
9×6

r/R	c/R	β
0.15	0.154	46.62
0.20	0.187	51.36
0.25	0.206	47.87

0.30	0.214	42.77
0.35	0.217	38.08
0.40	0.217	34.13
0.45	0.214	30.77
0.50	0.209	27.99
0.55	0.203	25.52
0.60	0.196	23.46
0.65	0.188	21.61
0.70	0.179	20.08
0.75	0.168	18.73
0.80	0.155	17.54
0.85	0.139	16.59
0.90	0.116	15.94
0.95	0.080	15.97
1.00	0.042	16.02

Graupner		
CAM Slim		
10×6		
r/R	c/R	β
0.15	0.135	40.89
0.20	0.173	44.57
0.25	0.197	42.71
0.30	0.203	38.09
0.35	0.204	33.75
0.40	0.201	30.07
0.45	0.197	26.97
0.50	0.191	24.32
0.55	0.185	22.06
0.60	0.178	20.15
0.65	0.170	18.50
0.70	0.161	17.06
0.75	0.151	15.67
0.80	0.139	14.71
0.85	0.123	13.65
0.90	0.102	12.85
0.95	0.067	11.79
1.00	0.032	10.72

Graupner		
CAM Slim		
10×8		
r/R	c/R	β
0.15	0.129	41.89
0.20	0.160	48.64
0.25	0.185	48.91
0.30	0.196	44.58
0.35	0.201	40.10
0.40	0.202	36.16
0.45	0.200	32.76
0.50	0.196	29.79
0.55	0.190	27.18
0.60	0.183	24.92
0.65	0.174	22.97

0.70	0.164	21.25
0.75	0.152	19.73
0.80	0.139	18.32
0.85	0.122	17.01
0.90	0.101	15.83
0.95	0.067	14.68
1.00	0.033	13.53

Graupner		
Slim Prop		
9×5		
r/R	c/R	β
0.15	0.180	39.06
0.20	0.216	34.10
0.25	0.242	28.74
0.30	0.247	26.17
0.35	0.247	24.00
0.40	0.244	21.87
0.45	0.238	19.92
0.50	0.229	18.25
0.55	0.219	16.75
0.60	0.207	15.51
0.65	0.193	14.48
0.70	0.178	13.70
0.75	0.161	12.80
0.80	0.142	12.28
0.85	0.121	11.81
0.90	0.097	11.25
0.95	0.064	10.28
1.00	0.031	9.29

Graupner		
Super Nylon		
10×6		
r/R	c/R	β
0.15	0.144	31.49
0.20	0.150	30.09
0.25	0.159	27.99
0.30	0.167	26.17
0.35	0.173	24.48
0.40	0.179	23.18
0.45	0.183	21.93
0.50	0.186	20.86
0.55	0.187	19.81
0.60	0.185	18.58
0.65	0.182	17.21
0.70	0.177	15.85
0.75	0.169	14.55
0.80	0.159	13.39
0.85	0.146	12.48
0.90	0.132	11.67
0.95	0.107	10.89
1.00	0.081	10.12

Graupner		
Super Nylon		
9×5		
r/R	c/R	β
0.15	0.162	30.52
0.20	0.158	29.64
0.25	0.166	27.42
0.30	0.174	25.57
0.35	0.182	24.00
0.40	0.188	22.55
0.45	0.193	21.25
0.50	0.194	20.03
0.55	0.195	18.75
0.60	0.192	17.57
0.65	0.188	16.35
0.70	0.183	15.10
0.75	0.176	13.81
0.80	0.166	12.49
0.85	0.153	11.39
0.90	0.138	10.14
0.95	0.112	8.50
1.00	0.086	6.84

Graupner		
Super Nylon		
9×7		
r/R	c/R	β
0.15	0.155	36.67
0.20	0.158	35.54
0.25	0.167	33.52
0.30	0.175	31.56
0.35	0.182	30.21
0.40	0.189	29.00
0.45	0.193	27.65
0.50	0.195	26.40
0.55	0.194	25.31
0.60	0.192	24.15
0.65	0.187	23.00

Graupner		
Slim Prop		
9×5		
r/R	c/R	β
0.15	0.180	39.06
0.20	0.216	34.10
0.25	0.242	28.74
0.30	0.247	26.17
0.35	0.247	24.00
0.40	0.244	21.87
0.45	0.238	19.92
0.50	0.229	18.25
0.55	0.219	16.75
0.60	0.207	15.51
0.65	0.193	14.48
0.70	0.178	13.70
0.75	0.161	12.80
0.80	0.142	12.28
0.85	0.121	11.81
0.90	0.097	11.25
0.95	0.064	10.28
1.00	0.031	9.29

Graupner		
Super Nylon		
11×6		
r/R	c/R	β
0.15	0.143	30.19
0.20	0.148	28.53
0.25	0.157	26.42
0.30	0.165	24.46
0.35	0.172	22.83
0.40	0.178	21.47
0.45	0.182	20.27
0.50	0.185	19.18
0.55	0.186	18.10
0.60	0.184	16.80
0.65	0.181	15.50
0.70	0.175	14.23
0.75	0.168	13.09
0.80	0.158	11.94
0.85	0.146	11.07
0.90	0.132	10.22
0.95	0.108	9.11
1.00	0.084	7.98

Graupner		
Super Nylon		
11×8		
r/R	c/R	β
0.15	0.143	33.64
0.20	0.148	32.16
0.25	0.157	30.17
0.30	0.166	28.27
0.35	0.173	26.63
0.40	0.179	25.30
0.45	0.183	24.18
0.50	0.186	23.18
0.55	0.187	22.06
0.60	0.185	20.90
0.65	0.182	19.69

Graupner		
Super Nylon		
10×7		
r/R	c/R	β
0.15	0.141	34.11
0.20	0.149	32.56
0.25	0.158	30.60

0.70	0.177	18.45		0.30	0.158	21.26		0.70	0.214	18.55
0.75	0.170	17.31		0.35	0.181	21.60		0.75	0.200	17.29
0.80	0.160	16.36		0.40	0.199	21.94		0.80	0.181	16.10
0.85	0.148	15.47		0.45	0.213	22.14		0.85	0.159	14.95
0.90	0.135	14.70		0.50	0.222	22.14		0.90	0.133	13.76
0.95	0.111	13.33		0.55	0.227	21.78		0.95	0.089	11.88
1.00	0.087	11.92		0.60	0.227	21.22		1.00	0.044	9.92
<hr/>				0.65	0.222	20.29		<hr/>		
GWS				0.30	0.180	23.69		GWS		
Direct Drive				0.35	0.181	23.69		Slow Flyer		
9×5				0.40	0.180	23.30		11×4.7		
r/R	c/R	β		0.45	0.179	22.42		r/R	c/R	β
0.15	0.169	25.65		0.50	0.177	21.05		0.15	0.103	17.31
0.20	0.181	26.35		0.55	0.175	19.69		0.20	0.121	19.83
0.25	0.183	26.75		0.60	0.171	18.20		0.25	0.145	20.88
0.30	0.183	26.49		0.65	0.166	16.64		0.30	0.170	20.51
0.35	0.182	25.57		0.70	0.158	15.34		0.35	0.193	19.91
0.40	0.180	23.95		0.75	0.149	14.22		0.40	0.211	18.73
0.45	0.176	21.72		0.80	0.139	13.24		0.45	0.223	17.05
0.50	0.173	19.38		0.85	0.126	12.29		0.50	0.228	15.34
0.55	0.170	17.53		0.90	0.112	11.06		0.55	0.231	13.87
0.60	0.167	15.80		0.95	0.093	9.75		0.60	0.229	12.81
0.65	0.162	14.40		1.00	0.072	8.44		0.65	0.225	12.02
<hr/>				GWS				<hr/>		
Slow Flyer				Slow Flyer				10×4.7		
9×4.7				r/R	c/R	β		r/R	c/R	β
r/R	c/R	β		0.15	0.117	13.11		0.30	0.173	21.48
0.90	0.117	8.70		0.20	0.127	19.41		0.35	0.196	20.47
0.95	0.095	6.50		0.25	0.150	21.55		0.40	0.217	19.34
1.00	0.073	4.26		0.30	0.173	21.48		0.45	0.231	18.21
<hr/>				0.50	0.239	16.79		0.50	0.228	15.34
GWS				0.55	0.241	15.45		0.55	0.231	13.87
Direct Drive				0.60	0.240	14.34		0.60	0.229	12.81
10×6				0.65	0.232	13.46		0.65	0.225	12.02
r/R	c/R	β		0.70	0.221	12.66		0.70	0.217	11.35
0.15	0.172	22.11		0.75	0.206	11.97		0.75	0.204	10.73
0.20	0.178	23.81		0.80	0.187	11.36		0.80	0.187	10.21
0.25	0.180	24.17		0.85	0.165	10.59		0.85	0.166	9.66
0.30	0.180	24.00		0.90	0.138	9.67		0.90	0.139	9.22
0.35	0.179	23.58		0.95	0.097	9.10		0.95	0.097	8.93
0.40	0.178	22.87		1.00	0.054	8.57		1.00	0.055	8.66
<hr/>				<hr/>				<hr/>		
GWS				GWS				Slow Flyer		
Slow Flyer				Slow Flyer				11×8		
9×7				r/R	c/R	β		r/R	c/R	β
r/R	c/R	β		0.15	0.109	20.01		0.15	0.092	21.24
0.70	0.147	14.51		0.20	0.125	20.41		0.20	0.105	21.38
0.75	0.139	13.52		0.25	0.145	20.62		0.25	0.124	21.61
0.80	0.129	12.44		0.30	0.167	20.61		0.30	0.146	21.77
0.85	0.119	11.48		0.35	0.188	20.72		0.35	0.170	21.83
0.90	0.107	10.23		0.40	0.205	21.02		0.40	0.191	21.89
0.95	0.092	8.61		0.45	0.219	21.41		0.45	0.207	21.84
1.00	0.076	6.97		0.50	0.228	21.68		0.50	0.218	21.77
<hr/>				0.55	0.232	21.61		0.55	0.224	21.46
GWS				0.60	0.231	21.01		0.60	0.224	20.69
Slow Flyer				0.65	0.225	19.87		0.65	0.219	19.44
9×7				0.70	0.210	18.23		0.70	0.197	17.21
r/R	c/R	β		0.75	0.180	16.22		0.80	0.180	16.22
0.15	0.107	27.15		0.85	0.159	15.45		0.85	0.134	14.66
0.20	0.112	20.45		0.90	0.134	14.66		0.95	0.099	13.65
0.25	0.134	20.95		0.95	0.099	13.65		1.00	0.063	12.64

Kyosho**9×6**

r/R	c/R	β
0.15	0.180	32.09
0.20	0.176	33.23
0.25	0.183	34.11
0.30	0.187	32.99
0.35	0.187	30.98
0.40	0.186	29.15
0.45	0.183	27.30
0.50	0.178	25.48
0.55	0.171	23.71
0.60	0.162	21.90
0.65	0.153	20.27
0.70	0.143	18.76
0.75	0.133	17.44
0.80	0.121	15.94
0.85	0.108	14.44
0.90	0.093	13.21
0.95	0.074	11.70
1.00	0.055	10.17

Kyosho**10×6**

r/R	c/R	β
0.15	0.171	33.95
0.20	0.172	34.54
0.25	0.185	34.06
0.30	0.188	32.17
0.35	0.187	29.53
0.40	0.185	27.27
0.45	0.180	25.24
0.50	0.175	23.35
0.55	0.169	21.52
0.60	0.162	19.94
0.65	0.155	18.49
0.70	0.146	17.29
0.75	0.135	16.11
0.80	0.123	15.07
0.85	0.110	14.18
0.90	0.094	13.36
0.95	0.069	12.44
1.00	0.042	11.50

Kyosho**10×7**

r/R	c/R	β
0.15	0.187	33.63
0.20	0.174	36.86
0.25	0.182	37.50
0.30	0.187	36.22
0.35	0.185	33.95

0.40 0.182 31.74

0.45 0.178 29.61

0.50 0.174 27.62

0.55 0.169 25.75

0.60 0.163 24.03

0.65 0.156 22.41

0.70 0.147 20.97

0.75 0.136 19.32

0.80 0.124 17.65

0.85 0.110 16.13

0.90 0.094 14.44

0.95 0.071 13.32

1.00 0.048 12.22

0.75 0.133 19.87

0.80 0.122 18.05

0.85 0.109 16.61

0.90 0.093 14.87

0.95 0.070 13.05

1.00 0.046 11.23

Master Airscrew**Electric****11×7**r/R c/R β

0.15 0.154 32.48

0.20 0.155 37.51

0.25 0.161 38.30

0.30 0.165 35.96

0.35 0.167 32.45

0.40 0.170 28.98

0.45 0.173 26.06

0.50 0.175 23.68

0.55 0.175 21.62

0.60 0.172 19.84

0.65 0.167 18.22

0.70 0.158 16.86

0.75 0.147 15.73

0.80 0.136 14.82

0.85 0.125 14.11

0.90 0.114 13.40

0.95 0.095 13.30

1.00 0.077 13.23

Kyosho**11×7**r/R c/R β

0.15 0.165 37.61

0.20 0.165 39.49

0.25 0.183 41.20

0.30 0.186 38.26

0.35 0.184 34.89

0.40 0.182 31.83

0.45 0.178 28.82

0.50 0.174 26.17

0.55 0.168 24.03

0.60 0.162 22.20

0.65 0.154 20.46

0.70 0.144 18.90

0.75 0.134 17.31

0.80 0.123 15.74

0.85 0.109 14.17

0.90 0.093 12.84

0.95 0.066 11.64

1.00 0.039 10.45

Kyosho**11×9**r/R c/R β

0.15 0.160 39.34

0.20 0.156 43.00

0.25 0.172 45.97

0.30 0.175 43.02

0.35 0.173 39.36

0.40 0.171 36.13

0.45 0.169 33.19

0.50 0.166 30.50

0.55 0.162 27.95

0.60 0.157 25.61

0.65 0.150 23.55

0.70 0.142 21.63

0.75 0.144 15.62

0.80 0.133 14.79

0.85 0.121 13.95

0.90 0.110 13.15

0.95 0.089 13.26

1.00 0.067 13.46

Master Airscrew**Electric****9×6**r/R c/R β

0.15 0.151 28.09

0.20 0.147 30.38

0.25 0.152 30.77

0.30 0.160 29.88

0.35 0.166 28.62

0.40 0.173 27.54

0.45 0.179 26.27

0.50 0.183 24.83

0.55 0.183 23.12

0.60 0.180 21.44

0.65 0.173 19.99

0.70 0.164 18.79

0.75 0.152 17.79

0.80 0.140 17.16

0.85 0.128 16.47

0.90 0.116 16.04

0.95 0.096 16.44

1.00 0.075 16.87

Master Airscrew**Electric****10×7**r/R c/R β

0.15 0.150 33.12

0.20 0.158 38.03

0.25 0.164 38.18

0.30 0.168 35.49

0.35 0.170 31.84

0.40 0.172 28.33

0.45 0.175 25.50

0.50 0.177 23.22

0.55 0.176 21.30

0.60 0.172 19.60

0.65 0.165 18.07

0.70 0.156 16.72

0.75 0.144 15.62

0.80 0.133 14.79

0.85 0.121 13.95

0.90 0.110 13.15

0.95 0.089 13.26

1.00 0.067 13.46

Master Airscrew**G/F****9×6**r/R c/R β

0.15 0.152 33.41

0.20 0.146 37.35

0.25 0.148 37.66

0.30	0.152	34.46
0.35	0.156	30.73
0.40	0.159	27.70
0.45	0.159	25.27
0.50	0.159	23.09
0.55	0.157	21.22
0.60	0.155	19.54
0.65	0.152	18.03
0.70	0.146	16.76
0.75	0.141	15.68
0.80	0.133	14.80
0.85	0.124	13.79
0.90	0.114	12.50
0.95	0.098	11.42
1.00	0.081	10.34

**Master Airscrew
G/F
10×6**

r/R	c/R	β
0.15	0.144	34.81
0.20	0.149	37.19
0.25	0.159	36.17
0.30	0.166	33.67
0.35	0.169	30.44
0.40	0.170	26.94
0.45	0.171	23.85
0.50	0.171	21.32
0.55	0.169	19.16
0.60	0.168	17.23
0.65	0.165	15.52
0.70	0.160	14.07
0.75	0.154	12.84
0.80	0.146	11.53
0.85	0.138	10.48
0.90	0.128	9.38
0.95	0.111	8.49
1.00	0.093	7.63

**Master Airscrew
G/F
10×8**

r/R	c/R	β
0.15	0.143	35.08
0.20	0.148	37.41
0.25	0.159	37.08
0.30	0.168	35.79
0.35	0.173	33.98
0.40	0.177	32.05
0.45	0.178	29.74
0.50	0.178	27.08
0.55	0.176	24.40
0.60	0.173	22.05
0.65	0.170	20.07

**Master Airscrew
G/F
11×7**

r/R	c/R	β
0.15	0.150	34.62
0.20	0.145	39.58
0.25	0.147	38.36
0.30	0.152	32.99
0.35	0.157	28.34
0.40	0.159	25.34
0.45	0.160	22.92
0.50	0.159	20.66
0.55	0.158	18.64
0.60	0.156	16.87
0.65	0.152	15.32
0.70	0.146	14.01
0.75	0.140	12.93
0.80	0.133	11.97
0.85	0.124	10.96
0.90	0.115	9.99
0.95	0.102	8.93
1.00	0.089	7.86

**Master Airscrew
G/F
11×8**

r/R	c/R	β
0.15	0.159	35.04
0.20	0.145	41.53
0.25	0.146	41.45
0.30	0.151	37.33
0.35	0.155	32.95
0.40	0.158	29.67
0.45	0.159	26.92
0.50	0.159	24.50
0.55	0.158	22.46
0.60	0.156	20.65
0.65	0.153	19.00

**Master Airscrew
Scimitar
9×5**

r/R	c/R	β
0.15	0.167	34.68
0.20	0.165	33.15
0.25	0.164	30.95
0.30	0.163	29.05
0.35	0.163	27.30
0.40	0.162	25.55
0.45	0.161	24.01
0.50	0.159	22.54
0.55	0.156	21.17
0.60	0.154	19.71
0.65	0.149	18.43

0.70	0.143	17.06
0.75	0.135	15.56
0.80	0.125	13.92
0.85	0.114	12.20
0.90	0.102	10.56
0.95	0.086	8.13
1.00	0.070	5.65

Master Airscrew Scimitar 10×7		
r/R	c/R	β
0.15	0.164	33.99
0.20	0.164	32.60
0.25	0.165	30.85
0.30	0.165	29.33
0.35	0.164	27.83
0.40	0.164	26.53
0.45	0.164	25.28
0.50	0.162	23.94
0.55	0.159	22.58
0.60	0.154	21.06
0.65	0.148	19.68
0.70	0.141	18.44
0.75	0.133	17.40
0.80	0.124	16.19
0.85	0.114	14.90
0.90	0.101	13.35
0.95	0.079	9.95
1.00	0.057	6.36

Master Airscrew Scimitar 11×6		
r/R	c/R	β
0.15	0.155	31.62
0.20	0.153	30.79
0.25	0.152	29.07
0.30	0.151	27.19
0.35	0.151	25.39
0.40	0.150	23.63
0.45	0.150	21.99
0.50	0.149	20.43
0.55	0.146	18.90
0.60	0.143	17.45
0.65	0.138	16.10
0.70	0.132	14.70
0.75	0.125	13.43
0.80	0.116	12.28
0.85	0.106	10.97
0.90	0.095	9.45
0.95	0.075	7.79
1.00	0.055	6.11

**Master Airscrew
Scimitar**

11×7

r/R	c/R	β
0.15	0.163	33.97
0.20	0.160	32.37
0.25	0.159	30.04
0.30	0.159	28.05
0.35	0.160	26.18
0.40	0.159	24.33
0.45	0.158	22.50
0.50	0.157	20.92
0.55	0.153	19.54
0.60	0.149	18.22
0.65	0.143	17.05
0.70	0.138	16.06
0.75	0.130	15.07
0.80	0.121	13.93
0.85	0.109	12.81
0.90	0.095	11.99
0.95	0.075	10.97
1.00	0.055	9.92

**Master Airscrew
Scimitar**

11×8

r/R	c/R	β
0.15	0.166	34.91
0.20	0.165	33.87
0.25	0.165	32.22
0.30	0.165	30.68
0.35	0.164	29.13
0.40	0.163	27.99
0.45	0.163	26.77
0.50	0.161	25.44
0.55	0.158	24.01
0.60	0.153	22.52
0.65	0.147	20.96
0.70	0.140	19.49
0.75	0.132	18.30
0.80	0.123	16.95
0.85	0.113	15.53
0.90	0.101	13.76
0.95	0.082	11.03
1.00	0.063	8.25

Appendix B

Tabulated Static Performance Data

Appendix B gives the tabular form of the static performance data that is presented in Chapter 5; the data includes the propeller speed, thrust coefficient, and power coefficient. For each data set presented, the corresponding figure numbers are provided, as well as the run number for the experiment.

APC		
Slow Flyer		
9×4.7		
Figs. 5.5–5.6		
Run: kt1032		
Ω	C_T	C_P
2763	0.1110	0.0527
3062	0.1124	0.0529
3310	0.1124	0.0528
3622	0.1130	0.0527
3874	0.1131	0.0527
4153	0.1136	0.0527
4422	0.1142	0.0528
4687	0.1148	0.0529
4942	0.1147	0.0528
5226	0.1156	0.0531
5473	0.1160	0.0531
5736	0.1161	0.0531
6026	0.1163	0.0531
6285	0.1163	0.0530
6554	0.1166	0.0530
6768	0.1170	0.0530
APC		
Slow Flyer		
9×6		
Figs. 5.11–5.12		
Run: kt0979		
Ω	C_T	C_P
2397	0.1364	0.0754
2633	0.1374	0.0755
2972	0.1373	0.0755
3220	0.1391	0.0765
3529	0.1411	0.0781
3771	0.1435	0.0801
4050	0.1449	0.0811
4323	0.1454	0.0819
4599	0.1464	0.0830
4878	0.1481	0.0848
5137	0.1493	0.0860
5416	0.1501	0.0871
5696	0.1520	0.0888
5975	0.1528	0.0901
6235	0.1540	0.0915
6540	0.1559	0.0934
APC		
Slow Flyer		
10×4.7		
Figs. 5.17–5.18		
Run: kt0835		
Ω	C_T	C_P
2377	0.1039	0.0473
2676	0.1058	0.0479
2947	0.1059	0.0479
3234	0.1083	0.0487
3494	0.1096	0.0494
3762	0.1121	0.0505
4029	0.1136	0.0512
4319	0.1155	0.0520
4590	0.1177	0.0531
4880	0.1199	0.0542
5147	0.1213	0.0549
5417	0.1228	0.0557
5715	0.1239	0.0563
5960	0.1253	0.0570
6226	0.1261	0.0575
6528	0.1274	0.0583
APC		
Slow Flyer		
11×4.7		
Figs. 5.35–5.36		
Run: pg0526		
Ω	C_T	C_P
1666	0.0971	0.0401
2018	0.0989	0.0400
2271	0.1007	0.0405
2556	0.1025	0.0410
2875	0.1043	0.0416
3144	0.1057	0.0420
3423	0.1074	0.0428
3728	0.1097	0.0436
3994	0.1110	0.0442
4290	0.1133	0.0452
4585	0.1155	0.0462
4853	0.1172	0.0470
5175	0.1190	0.0479
5450	0.1210	0.0488
5710	0.1229	0.0497
6021	0.1239	0.0504
APC		
Slow Flyer		
10×7		
Figs. 5.23–5.24		
Run: kt0827		
Ω	C_T	C_P
2283	0.1383	0.0744
2586	0.1398	0.0742
2834	0.1404	0.0744
3029	0.1420	0.0753
3300	0.1444	0.0771
3540	0.1454	0.0776
3730	0.1462	0.0783
4034	0.1483	0.0796
4280	0.1495	0.0807
4523	0.1506	0.0815
4782	0.1516	0.0824
5015	0.1534	0.0837
5248	0.1545	0.0847
5541	0.1550	0.0853
5759	0.1568	0.0867
5987	0.1575	0.0875
APC		
Slow Flyer		
11×7		
Figs. 5.41–5.42		
Run: kt0632		
Ω	C_T	C_P
1868	0.1441	0.0704
2199	0.1457	0.0707
2422	0.1466	0.0715
2678	0.1472	0.0713
2926	0.1483	0.0720
3201	0.1497	0.0734
3440	0.1518	0.0753
3705	0.1535	0.0761
3971	0.1542	0.0765
4215	0.1552	0.0771
4489	0.1566	0.0782
4732	0.1576	0.0793
4987	0.1592	0.0804
5246	0.1598	0.0811
5501	0.1605	0.0818
5745	0.1623	0.0831
APC		
Sport Propeller		
9×5		
Figs. 5.47–5.48		
Run: kt1025		
Ω	C_T	C_P
2726	0.0873	0.0518
2990	0.0882	0.0512
3270	0.0893	0.0510
3564	0.0901	0.0505
3829	0.0907	0.0501
4103	0.0919	0.0500
4382	0.0924	0.0496
4671	0.0931	0.0493
4930	0.0941	0.0491
5228	0.0948	0.0483
5515	0.0961	0.0479
5788	0.0965	0.0477
6104	0.0966	0.0471
6344	0.0973	0.0470
6629	0.0983	0.0468
6918	0.0989	0.0461
APC		
Sport Propeller		
9×7		
Figs. 5.53–5.54		
Run: kt1009		
Ω	C_T	C_P
2489	0.0962	0.0716
2797	0.0973	0.0702
3083	0.0992	0.0702
3359	0.1008	0.0698
3631	0.1009	0.0682
3921	0.1027	0.0680
4182	0.1040	0.0677
4495	0.1052	0.0674
4745	0.1056	0.0669
5044	0.1068	0.0665
5299	0.1081	0.0658
5582	0.1088	0.0649
5903	0.1094	0.0643
6147	0.1102	0.0643
6442	0.1107	0.0639
6704	0.1110	0.0637
APC		
Sport Propeller		
10×6		
Figs. 5.59–5.60		
Run: pg0802		
Ω	C_T	C_P
2023	0.0930	0.0593

2307	0.0994	0.0607	4629	0.0801	0.0328		2075	0.1067	0.0804
2587	0.1018	0.0606	4949	0.0823	0.0328		2366	0.1079	0.0801
2824	0.1022	0.0601	5272	0.0837	0.0329		2599	0.1081	0.0792
3171	0.1025	0.0592	5585	0.0848	0.0330		2886	0.1093	0.0782
3437	0.1039	0.0591	5924	0.0855	0.0328		3137	0.1107	0.0789
3803	0.1054	0.0586	6225	0.0863	0.0328		3416	0.1112	0.0781
4107	0.1053	0.0578	6549	0.0866	0.0326		3685	0.1118	0.0778
4404	0.1070	0.0576					3950	0.1123	0.0769
4703	0.1084	0.0572					4222	0.1132	0.0760
5013	0.1097	0.0567					4494	0.1149	0.0759
5319	0.1102	0.0562					4738	0.1150	0.0748
5618	0.1109	0.0557					5022	0.1157	0.0743
5906	0.1118	0.0552					5280	0.1163	0.0739
6205	0.1127	0.0547					5562	0.1178	0.0731
6489	0.1139	0.0542					5793	0.1192	0.0725
<hr/>									
APC									
Sport Propeller									
11×7									
Figs. 5.89–5.90									
Run: kt0473									
	Ω	C_T	C_P						
1583	0.0958	0.0622							
1896	0.0981	0.0613							
2163	0.1002	0.0603							
2499	0.1028	0.0597							
2782	0.1037	0.0586							
3098	0.1059	0.0588							
3419	0.1077	0.0585							
3701	0.1088	0.0582							
4006	0.1119	0.0578							
4314	0.1133	0.0572							
4611	0.1145	0.0569							
4915	0.1150	0.0564							
5219	0.1170	0.0560							
5509	0.1178	0.0557							
5837	0.1185	0.0553							
6170	0.1185	0.0551							
<hr/>									
APC									
Sport Prop									
14×13									
Figs. 5.107–5.108									
Run: jb1048									
	Ω	C_T	C_P						
1502	0.1058	0.0895							
1641	0.1057	0.0888							
1777	0.1088	0.0900							
1908	0.1096	0.0895							
2038	0.1085	0.0883							
2177	0.1105	0.0895							
2303	0.1116	0.0892							
2451	0.1106	0.0879							
2572	0.1118	0.0880							
2703	0.1122	0.0872							
2843	0.1133	0.0871							
2969	0.1135	0.0864							
3106	0.1141	0.0855							
3243	0.1153	0.0844							
3374	0.1159	0.0844							
3501	0.1156	0.0840							
<hr/>									
APC									
Thin Electric									
9×4.5									
Figs. 5.113–5.114									
Run: rd0995									
	Ω	C_T	C_P						
2499	0.0872	0.0431							
2800	0.0904	0.0432							
3119	0.0915	0.0430							
3384	0.0916	0.0424							
3679	0.0924	0.0420							
3972	0.0933	0.0421							
4271	0.0939	0.0420							
4569	0.0949	0.0422							
4830	0.0955	0.0422							
<hr/>									
APC									
Sport Propeller									
11×9									
Figs. 5.101–5.102									
Run: pg0624									
	Ω	C_T	C_P						
1791	0.1062	0.0814							

5157	0.0962	0.0423
5450	0.0966	0.0424
5731	0.0969	0.0424
6043	0.0973	0.0425
6335	0.0977	0.0426
6641	0.0981	0.0427
6922	0.0988	0.0430

APC		
Thin Electric		
9×6		
Figs. 5.119–5.120		
Run: rd0987		
Ω	C_T	C_P
2333	0.1070	0.0594
2620	0.1070	0.0579
2901	0.1091	0.0577
3145	0.1095	0.0577
3476	0.1106	0.0577
3779	0.1110	0.0573
4079	0.1113	0.0572
4353	0.1115	0.0568
4667	0.1115	0.0565
4963	0.1118	0.0564
5251	0.1124	0.0564
5537	0.1131	0.0565
5841	0.1132	0.0565
6108	0.1133	0.0563
6415	0.1138	0.0565
6717	0.1141	0.0566

APC		
Thin Electric		
10×5		
Figs. 5.125–5.126		
Run: pg0819		
Ω	C_T	C_P
2508	0.0897	0.0411
2795	0.0914	0.0410
3093	0.0920	0.0408
3344	0.0919	0.0404
3630	0.0922	0.0402
3919	0.0926	0.0402
4176	0.0932	0.0402
4446	0.0938	0.0404
4743	0.0940	0.0403
5025	0.0946	0.0404
5314	0.0950	0.0406
5596	0.0956	0.0409
5869	0.0958	0.0409
6146	0.0964	0.0410
6434	0.0968	0.0413
6708	0.0975	0.0416

APC		
Thin Electric		
10×7		
Figs. 5.131–5.132		
Run: pg0811		

Ω	C_T	C_P
1975	0.0963	0.0601
2292	0.0983	0.0596
2632	0.0995	0.0591
2908	0.1002	0.0590
3211	0.1014	0.0592
3504	0.1019	0.0591
3815	0.1024	0.0589
4144	0.1031	0.0588
4409	0.1031	0.0585
4711	0.1042	0.0583
5011	0.1050	0.0580
5325	0.1056	0.0577
5624	0.1096	0.0556
5938	0.1105	0.0559
6231	0.1111	0.0560
6542	0.1117	0.0561

APC		
Thin Electric		
11×5.5		
Figs. 5.137–5.138		
Run: kt0467		

Ω	C_T	C_P
1868	0.0765	0.0335
2200	0.0791	0.0331
2450	0.0811	0.0328
2800	0.0820	0.0322
3095	0.0825	0.0318
3406	0.0835	0.0320
3716	0.0843	0.0319
4043	0.0848	0.0319
4350	0.0849	0.0319
4651	0.0857	0.0321
4968	0.0859	0.0321
5273	0.0863	0.0322
5577	0.0871	0.0325
5891	0.0876	0.0326
6213	0.0882	0.0329
6473	0.0888	0.0331

APC		
Thin Electric		
11×7		
Figs. 5.143–5.144		
Run: kt0534		

Ω	C_T	C_P
1966	0.0971	0.0479

2322	0.0992	0.0463
2581	0.1008	0.0460
2869	0.1005	0.0457
3158	0.1015	0.0452
3438	0.1023	0.0450
3723	0.1036	0.0450
4034	0.1030	0.0444
4311	0.1038	0.0446

4572	0.1048	0.0449
4879	0.1050	0.0449
5181	0.1055	0.0450
5444	0.1063	0.0454
5749	0.1064	0.0454
5995	0.1075	0.0458
6320	0.1076	0.0458

APC		
Thin Electric		
11×10		
Figs. 5.161–5.162		
Run: pg0460		

Ω	C_T	C_P
1655	0.0936	0.0536
2019	0.0962	0.0535
2320	0.0972	0.0531
2616	0.0978	0.0525
2916	0.0996	0.0532
3209	0.1002	0.0532
3512	0.1008	0.0538
3805	0.1009	0.0534
4119	0.1014	0.0533

4406	0.1023	0.0534
4722	0.1029	0.0534
5001	0.1042	0.0534
5302	0.1065	0.0529
5598	0.1072	0.0526
5905	0.1096	0.0517
6213	0.1118	0.0515

APC		
Thin Electric		
11×8.5		
Figs. 5.155–5.156		
Run: jb0452		
Ω	C_T	C_P
1973	0.0945	0.0598
2275	0.0954	0.0596
2557	0.0959	0.0590
2829	0.0970	0.0589
3115	0.0973	0.0584
3380	0.0988	0.0588
3642	0.0994	0.0588
3929	0.0995	0.0587
4205	0.1003	0.0591

4468	0.1007	0.0591
4730	0.1010	0.0592
5027	0.1015	0.0595
5284	0.1054	0.0575
5559	0.1061	0.0576
5825	0.1062	0.0575
6122	0.1066	0.0578

APC		
Thin Electric		
11×12		
Figs. 5.167–5.168		
Run: kt1063		

Ω	C_T	C_P
1496	0.0860	0.0637
1636	0.0858	0.0633
1741	0.0869	0.0643
1904	0.0872	0.0638
2036	0.0873	0.0636
2172	0.0883	0.0638
2302	0.0884	0.0641
2444	0.0886	0.0639
2574	0.0890	0.0641
2706	0.0893	0.0642
2842	0.0894	0.0641
2972	0.0900	0.0645
3115	0.0903	0.0648
3244	0.0907	0.0650
3376	0.0910	0.0649
3506	0.0920	0.0653

APC		
Thin Electric		
17×12		
Figs. 5.173–5.174		
Run: jb1091		
Ω	C_T	C_P
1392	0.0845	0.0535
1538	0.0851	0.0532
1569	0.0855	0.0537
1793	0.0866	0.0534
1915	0.0869	0.0536
2041	0.0873	0.0531
2157	0.0880	0.0535
2291	0.0880	0.0536
2421	0.0885	0.0539
2546	0.0887	0.0537
2667	0.0894	0.0539
2803	0.0895	0.0539
2920	0.0897	0.0540
3061	0.0902	0.0540
3184	0.0907	0.0541
3290	0.0909	0.0542
APC		
Thin Electric		
19×12		
Figs. 5.179–5.180		
Run: jb1078		
Ω	C_T	C_P
1261	0.0880	0.0413
1376	0.0894	0.0412
1505	0.0897	0.0414
1612	0.0912	0.0410
1721	0.0913	0.0409
1833	0.0923	0.0410
1955	0.0927	0.0409
2070	0.0935	0.0407
2191	0.0931	0.0406
2309	0.0932	0.0408
2426	0.0936	0.0410
2537	0.0964	0.0399
2652	0.0955	0.0404
2776	0.0956	0.0406
2889	0.0964	0.0408
3007	0.0966	0.0409
Graupner		
CAM Prop		
9×4		
Figs. 5.185–5.186		
Run: rd0923		
Ω	C_T	C_P
2554	0.0544	0.0302
2836	0.0559	0.0305
3105	0.0573	0.0304
3428	0.0584	0.0303
3709	0.0598	0.0304
4014	0.0608	0.0303
4319	0.0621	0.0302
4607	0.0632	0.0302
4919	0.0645	0.0302
5211	0.0655	0.0300
5506	0.0666	0.0300
5804	0.0675	0.0300
6101	0.0688	0.0299
6409	0.0692	0.0297
6704	0.0703	0.0297
7031	0.0708	0.0296
Graupner		
CAM Prop		
9×6		
Figs. 5.191–5.192		
Run: pg0915		
Ω	C_T	C_P
2501	0.0834	0.0545
2745	0.0854	0.0551
3110	0.0872	0.0542
3377	0.0899	0.0539
3665	0.0899	0.0528
3931	0.0911	0.0526
4260	0.0919	0.0523
4513	0.0924	0.0520
4801	0.0938	0.0522
5083	0.0945	0.0521
5384	0.0951	0.0519
5666	0.0962	0.0517
5945	0.0983	0.0514
6225	0.0997	0.0509
6530	0.0997	0.0506
6816	0.0994	0.0502
Graupner		
CAM Prop		
10×6		
Figs. 5.197–5.198		
Run: rd0851		
Ω	C_T	C_P
1987	0.0812	0.0494
2314	0.0833	0.0492
2565	0.0853	0.0487
2942	0.0901	0.0488
3270	0.0920	0.0478
3556	0.0932	0.0473
3863	0.0955	0.0468
4164	0.0967	0.0461
4475	0.0981	0.0458
Graupner		
CAM Prop		
11×6		
Figs. 5.215–5.216		
Run: rd0556		
Ω	C_T	C_P
1995	0.0663	0.0351
2296	0.0698	0.0353
2595	0.0712	0.0348
2885	0.0735	0.0343
3168	0.0757	0.0344
3484	0.0774	0.0343
3769	0.0794	0.0341
4076	0.0809	0.0336
4344	0.0831	0.0334
4632	0.0846	0.0330
4934	0.0846	0.0326
5221	0.0849	0.0325
5527	0.0858	0.0325
5833	0.0860	0.0324
6124	0.0863	0.0324
6397	0.0867	0.0324
Graupner		
CAM Prop		
11×8		
Figs. 5.221–5.222		
Run: kt0641		
Ω	C_T	C_P
1993	0.0927	0.0614
2303	0.0939	0.0598
2568	0.0955	0.0592
2820	0.0970	0.0586
3096	0.0994	0.0586
3396	0.1004	0.0580
3650	0.1018	0.0579
3921	0.1039	0.0577
4201	0.1046	0.0573
4462	0.1067	0.0568
4743	0.1075	0.0563
5024	0.1093	0.0560
5301	0.1095	0.0556
5567	0.1103	0.0558
5838	0.1109	0.0559
6116	0.1114	0.0558
Graupner		
CAM Slim		
9×6		
Figs. 5.227–5.228		
Run: pg0945		
Ω	C_T	C_P
2184	0.1234	0.0853

2490	0.1254	0.0846
2776	0.1249	0.0833
3052	0.1263	0.0837
3360	0.1264	0.0836
3640	0.1271	0.0833
3952	0.1269	0.0829
4232	0.1272	0.0828
4510	0.1273	0.0827
4802	0.1279	0.0831
5081	0.1282	0.0831
5380	0.1285	0.0829
5642	0.1289	0.0830
5923	0.1296	0.0834
6220	0.1299	0.0834
6528	0.1300	0.0834

Graupner		
CAM Slim		
10×6		
Figs. 5.233–5.234		
Run: jb0867		
Ω	C_T	C_P
2203	0.1158	0.0623
2511	0.1161	0.0611
2758	0.1180	0.0613
3047	0.1173	0.0606
3339	0.1176	0.0607
3623	0.1181	0.0604
3898	0.1191	0.0608
4166	0.1196	0.0609
4447	0.1200	0.0610
4727	0.1203	0.0612
5000	0.1206	0.0612
5284	0.1213	0.0615
5601	0.1216	0.0616
5853	0.1220	0.0619
6143	0.1220	0.0620
6405	0.1224	0.0621

Graupner		
CAM Slim		
10×8		
Figs. 5.239–5.240		
Run: jb0859		
Ω	C_T	C_P
2169	0.1279	0.0885
2466	0.1299	0.0886
2749	0.1301	0.0881
2994	0.1299	0.0872
3299	0.1300	0.0871
3540	0.1309	0.0872
3817	0.1312	0.0871
4069	0.1322	0.0874
4346	0.1327	0.0876

4611	0.1337	0.0879
4860	0.1336	0.0875
5164	0.1341	0.0878
5402	0.1341	0.0878
5690	0.1349	0.0881
5959	0.1350	0.0882
6247	0.1356	0.0885

Graupner		
Slim Prop		
9×5		
Figs. 5.245–5.246		
Run: kt0958		

Ω	C_T	C_P
2892	0.0837	0.0401
3176	0.0837	0.0398
3449	0.0840	0.0398
3731	0.0844	0.0393
3936	0.0846	0.0390
4265	0.0852	0.0390
4511	0.0856	0.0389
4798	0.0863	0.0390
5059	0.0868	0.0390
5307	0.0871	0.0389
5571	0.0872	0.0388
5841	0.0879	0.0391
6096	0.0879	0.0389
6395	0.0887	0.0391
6649	0.0888	0.0391
6933	0.0894	0.0392

Graupner		
Super Nylon		
9×5		
Figs. 5.251–5.252		
Run: rd0929		

Ω	C_T	C_P
2480	0.0970	0.0542
2811	0.1010	0.0545
3031	0.1019	0.0542
3409	0.1034	0.0534
3612	0.1032	0.0526
3967	0.1041	0.0523
4230	0.1044	0.0518
4517	0.1052	0.0518
4794	0.1057	0.0515
5095	0.1061	0.0513
5393	0.1064	0.0511
5662	0.1069	0.0512
5961	0.1072	0.0510
6240	0.1075	0.0509
6532	0.1075	0.0507
6764	0.1079	0.0508

Graupner		
Super Nylon		
9×7		
Figs. 5.257–5.258		
Run: rd0936		

Ω	C_T	C_P
2303	0.1368	0.0857
2598	0.1409	0.0853
2880	0.1410	0.0844
3178	0.1412	0.0841
3459	0.1425	0.0834
3765	0.1417	0.0815
4029	0.1434	0.0826
4313	0.1438	0.0822
4594	0.1445	0.0823
4883	0.1446	0.0821
5173	0.1444	0.0818
5495	0.1449	0.0818
5745	0.1449	0.0817
6037	0.1448	0.0817
6313	0.1446	0.0814
6618	0.1448	0.0815

Graupner		
Super Nylon		
10×6		
Figs. 5.263–5.264		
Run: rd0779		

Ω	C_T	C_P
2322	0.1073	0.0541
2561	0.1084	0.0535
2888	0.1092	0.0542
3197	0.1102	0.0553
3444	0.1101	0.0535
3752	0.1096	0.0521
4024	0.1112	0.0524
4326	0.1111	0.0521
4598	0.1118	0.0521
4894	0.1120	0.0521
5187	0.1122	0.0521
5477	0.1125	0.0520
5751	0.1129	0.0521
6033	0.1129	0.0520
6325	0.1128	0.0518
6648	0.1132	0.0518

Graupner		
Super Nylon		
10×7		
Figs. 5.269–5.270		
Run: rd0787		

Ω	C_T	C_P
1954	0.1216	0.0684

2333 0.1236 0.0676

2550 0.1244 0.0672

2892 0.1250 0.0673

3148 0.1259 0.0615

3491 0.1262 0.0656

3776 0.1274 0.0656

4052 0.1269 0.0651

4354 0.1275 0.0653

4642 0.1277 0.0652

4939 0.1275 0.0650

5250 0.1279 0.0650

5532 0.1275 0.0648

5865 0.1279 0.0647

6124 0.1277 0.0645

6388 0.1277 0.0645

Graupner

Super Nylon

11×6

Figs. 5.275–5.276

Run: rd0665

Ω C_T C_P

1951 0.1024 0.0458

2313 0.1015 0.0444

2599 0.1043 0.0448

2879 0.1056 0.0448

3156 0.1023 0.0433

3444 0.1035 0.0431

3724 0.1032 0.0427

4011 0.1034 0.0426

4320 0.1046 0.0430

4599 0.1039 0.0423

4898 0.1048 0.0425

5180 0.1043 0.0422

5474 0.1050 0.0425

5741 0.1054 0.0425

6033 0.1059 0.0425

6338 0.1060 0.0426

Graupner

Super Nylon

11×8

Figs. 5.281–5.282

Run: rd0657

Ω C_T C_P

2045 0.1211 0.0591

2291 0.1219 0.0592

2526 0.1217 0.0581

4352	0.1249	0.0573
4633	0.1257	0.0575
4861	0.1252	0.0573
5118	0.1255	0.0571
5390	0.1258	0.0571
5655	0.1261	0.0571
5908	0.1259	0.0571

GWS		
Direct Drive		
9×5		
Figs. 5.287–5.288		
Run: jb1002		
Ω	C_T	C_P
2523	0.0901	0.0436
2811	0.0911	0.0432
3078	0.0932	0.0437
3322	0.0940	0.0432
3678	0.0955	0.0432
3938	0.0956	0.0430
4224	0.0967	0.0430
4513	0.0984	0.0432
4805	0.0987	0.0431
5100	0.0994	0.0430
5373	0.0991	0.0428
5680	0.1005	0.0431
5963	0.1008	0.0431
6217	0.1012	0.0432
6518	0.1015	0.0432
6797	0.1018	0.0433

GWS		
Direct Drive		
10×6		
Figs. 5.293–5.294		
Run: jb0712		
Ω	C_T	C_P
2454	0.0915	0.0416
2788	0.0920	0.0405
3070	0.0917	0.0399
3340	0.0926	0.0401
3633	0.0931	0.0398
3900	0.0924	0.0394
4203	0.0928	0.0394
4454	0.0929	0.0394
4743	0.0932	0.0394
5039	0.0930	0.0393
5299	0.0934	0.0395
5586	0.0933	0.0395
5895	0.0935	0.0396
6151	0.0935	0.0395
6429	0.0939	0.0397
6690	0.0937	0.0397

GWS		
Direct Drive		
11×7		
Figs. 5.299–5.300		
Run: jb0570		

Ω	C_T	C_P
2004	0.1001	0.0434
2300	0.1015	0.0427
2578	0.1018	0.0422
2870	0.1024	0.0417
3157	0.1027	0.0413
3453	0.1037	0.0419
3741	0.1035	0.0412
4002	0.1038	0.0409
4308	0.1035	0.0406
4580	0.1042	0.0409
4879	0.1049	0.0410
5146	0.1047	0.0411
5437	0.1048	0.0410
5723	0.1054	0.0411
6032	0.1052	0.0410
6298	0.1054	0.0411

GWS		
Slow Flyer		
9×4.7		
Figs. 5.305–5.306		
Run: kt0965		

Ω	C_T	C_P
2680	0.1076	0.0542
2973	0.1105	0.0551
3199	0.1121	0.0553
3507	0.1136	0.0557
3793	0.1139	0.0558
4071	0.1147	0.0555
4364	0.1151	0.0553
4606	0.1160	0.0553
4900	0.1169	0.0554
5175	0.1173	0.0553
5444	0.1172	0.0549
5719	0.1176	0.0548
6031	0.1170	0.0543
6268	0.1169	0.0541
6548	0.1169	0.0538
6827	0.1164	0.0534

GWS		
Slow Flyer		
9×7		
Figs. 5.311–5.312		
Run: kt0972		

Ω	C_T	C_P
2917	0.1463	0.0895

3138	0.1473	0.0900
3367	0.1481	0.0909
3608	0.1485	0.0914
3837	0.1494	0.0922
4109	0.1504	0.0930
4276	0.1515	0.0936
4542	0.1522	0.0945
4769	0.1536	0.0957

5008	0.1539	0.0960
5259	0.1538	0.0962
5476	0.1541	0.0968
5723	0.1538	0.0989
5937	0.1543	0.1027
6168	0.1545	0.1060
6431	0.1540	0.1117

GWS		
Slow Flyer		
10×4.7		
Figs. 5.317–5.318		
Run: jb0875		
Ω	C_T	C_P

2209	0.1175	0.0572
2432	0.1197	0.0578
2743	0.1212	0.0584
3023	0.1237	0.0591
3302	0.1253	0.0596
3578	0.1264	0.0597
3862	0.1278	0.0601
4122	0.1289	0.0606
4395	0.1302	0.0610
4668	0.1306	0.0613
4965	0.1320	0.0618
5243	0.1329	0.0622
5492	0.1338	0.0627
5763	0.1332	0.0626
6044	0.1346	0.0632
6298	0.1348	0.0633

GWS		
Slow Flyer		
11×8		
Figs. 5.335–5.336		
Run: kt0649		

Ω	C_T	C_P
1873	0.1371	0.0700
2159	0.1390	0.0703
2409	0.1407	0.0714
2672	0.1428	0.0726
2920	0.1432	0.0730
3172	0.1451	0.0742
3423	0.1457	0.0751
3693	0.1468	0.0758
3929	0.1476	0.0765
4202	0.1482	0.0774
4434	0.1492	0.0786
4693	0.1474	0.0833
4944	0.1461	0.0866
5231	0.1439	0.0880
5487	0.1452	0.0852
5719	0.1522	0.0850

Kyosho		
9×6		
Figs. 5.341–5.342		
Run: jb1039		

Ω	C_T	C_P
2356	0.0918	0.0592
2695	0.0964	0.0575
2979	0.1006	0.0559
3244	0.1020	0.0552
3590	0.1054	0.0547
3886	0.1066	0.0545
4163	0.1070	0.0537
4467	0.1080	0.0535
4758	0.1084	0.0530
5046	0.1093	0.0530
5352	0.1093	0.0527
5639	0.1091	0.0525
5975	0.1090	0.0521
6245	0.1094	0.0521
6509	0.1096	0.0520
6767	0.1101	0.0521

Kyosho		
10×6		
Figs. 5.347–5.348		
Run: jb0762		

Ω	C_T	C_P
2297	0.0949	0.0616
2599	0.0940	0.0595
2868	0.0960	0.0598
3164	0.0962	0.0589
3452	0.0972	0.0582
3710	0.0977	0.0575
3989	0.0987	0.0569
4270	0.0998	0.0566
4544	0.1001	0.0562
4841	0.1004	0.0559
5113	0.1008	0.0558
5411	0.1011	0.0556
5669	0.1013	0.0556
5959	0.1013	0.0555
6251	0.1020	0.0557
6528	0.1015	0.0553

Kyosho		
10×7		
Figs. 5.353–5.354		
Run: rd0770		

Ω	C_T	C_P
2012	0.0906	0.0687
2345	0.0944	0.0693
2546	0.0969	0.0697

2896	0.0976	0.0682
3206	0.0992	0.0679
3523	0.1008	0.0664
3821	0.1024	0.0654
4101	0.1047	0.0639
4406	0.1094	0.0621
4716	0.1097	0.0617
5018	0.1103	0.0616
5335	0.1148	0.0585
5621	0.1154	0.0585
5915	0.1152	0.0583
6203	0.1152	0.0581
6515	0.1154	0.0580

Master Airscrew		
Electric		
11×7		
Figs. 5.383–5.384		
Run: rd0577		

Ω	C_T	C_P
2003	0.1074	0.0664
2268	0.1082	0.0656
2534	0.1094	0.0653
2779	0.1114	0.0656
3077	0.1121	0.0653
3320	0.1126	0.0656
3571	0.1154	0.0659
3823	0.1174	0.0659
4087	0.1216	0.0658
4347	0.1271	0.0657
4626	0.1285	0.0657
4866	0.1301	0.0662
5146	0.1308	0.0661
5373	0.1316	0.0659
5644	0.1378	0.0651
5895	0.1387	0.0652

Master Airscrew		
G/F		
9×4		
Figs. 5.389–5.390		
Run: rd0894		

Ω	C_T	C_P
2985	0.0626	0.0341
3313	0.0669	0.0346
3558	0.0677	0.0339
3793	0.0693	0.0341
4072	0.0708	0.0338
4357	0.0718	0.0336
4634	0.0723	0.0333
4898	0.0735	0.0333
5134	0.0741	0.0333
5418	0.0743	0.0330
5682	0.0751	0.0331
5952	0.0756	0.0330
6228	0.0761	0.0330
6490	0.0765	0.0328
6756	0.0764	0.0327
7007	0.0769	0.0327

Master Airscrew		
G/F		
9×6		
Figs. 5.395–5.396		
Run: rd0886		

Ω	C_T	C_P
2510	0.0803	0.0531

2785	0.0827	0.0528
3100	0.0870	0.0525
3329	0.0918	0.0524
3654	0.0948	0.0517
3942	0.0974	0.0513
4222	0.0987	0.0510
4524	0.0999	0.0508
4800	0.1009	0.0506
5094	0.1015	0.0504
5370	0.1021	0.0501
5666	0.1027	0.0501
5944	0.1030	0.0498
6261	0.1031	0.0496
6532	0.1030	0.0494
6806	0.1028	0.0490

Master Airscrew		
G/F		
10×6		
Figs. 5.401–5.402		
Run: pg0728		
Ω	C_T	C_P
2207	0.0938	0.0503
2462	0.0960	0.0490
2782	0.0984	0.0484
3077	0.0989	0.0475
3359	0.1007	0.0476
3634	0.1013	0.0472
3921	0.1023	0.0472
4220	0.1020	0.0466
4515	0.1026	0.0466
4799	0.1030	0.0465
5071	0.1031	0.0465
5356	0.1031	0.0462
5657	0.1030	0.0461
5922	0.1035	0.0462
6213	0.1032	0.0460
6505	0.1028	0.0458

Master Airscrew		
G/F		
10×8		
Figs. 5.407–5.408		
Run: pg0719		
Ω	C_T	C_P
1971	0.1179	0.0683
2285	0.1229	0.0673
2575	0.1245	0.0665
2866	0.1242	0.0654
3165	0.1230	0.0649
3463	0.1232	0.0645
3732	0.1214	0.0633
4028	0.1211	0.0631
4300	0.1202	0.0627

4582	0.1200	0.0625
4897	0.1197	0.0624
5189	0.1199	0.0626
5477	0.1194	0.0622
5727	0.1194	0.0623
6034	0.1196	0.0624
6332	0.1194	0.0622

Master Airscrew		
G/F		
11×4		
Figs. 5.413–5.414		
Run: rd0593		

Ω	C_T	C_P
2013	0.0471	0.0243

2325	0.0505	0.0244
2637	0.0535	0.0240
2943	0.0559	0.0238
3297	0.0588	0.0250
3577	0.0598	0.0241
3902	0.0615	0.0238
4197	0.0621	0.0237
4510	0.0631	0.0237
4843	0.0640	0.0236
5142	0.0644	0.0235
5462	0.0648	0.0233
5751	0.0650	0.0232
6096	0.0649	0.0231
6406	0.0653	0.0231
6705	0.0656	0.0229

Master Airscrew		
G/F		
11×6		
Figs. 5.419–5.420		
Run: kt0689		

Ω	C_T	C_P
2085	0.0813	0.0396

2436	0.0861	0.0393
2705	0.0882	0.0389
2992	0.0895	0.0386
3256	0.0904	0.0384
3553	0.0917	0.0381
3831	0.0920	0.0380
4139	0.0922	0.0377
4401	0.0932	0.0377
4686	0.0930	0.0375
4991	0.0933	0.0374
5275	0.0936	0.0374
5568	0.0936	0.0372
5847	0.0938	0.0373
6105	0.0939	0.0372
6418	0.0935	0.0370

Master Airscrew		
G/F		
11×7		
Figs. 5.425–5.426		
Run: rd0586		

Ω	C_T	C_P
2002	0.0811	0.0413

2296	0.0852	0.0412
2590	0.0888	0.0412
2893	0.0909	0.0407
3180	0.0934	0.0406
3479	0.0941	0.0403
3770	0.0957	0.0403
4068	0.0966	0.0401
4359	0.0975	0.0401
4660	0.0981	0.0400
4933	0.0988	0.0400
5225	0.0989	0.0398
5543	0.0995	0.0399
5830	0.0995	0.0396
6121	0.0999	0.0397
6422	0.0999	0.0395

Master Airscrew		
G/F		
11×8		
Figs. 5.431–5.432		
Run: pg0598		

Ω	C_T	C_P
1670	0.0915	0.0537

1993	0.0987	0.0516
2302	0.1027	0.0515
2569	0.1043	0.0507
2867	0.1071	0.0506
3138	0.1076	0.0500
3441	0.1083	0.0503
3721	0.1083	0.0494
4012	0.1086	0.0490

4296	0.1088	0.0487
4576	0.1085	0.0485
4877	0.1088	0.0486
5139	0.1084	0.0483
5441	0.1084	0.0481
5732	0.1084	0.0481
6005	0.1085	0.0481

Master Airscrew		
Scimitar		
9×5		
Figs. 5.437–5.438		
Run: pg0900		

Ω	C_T	C_P
2487	0.0632	0.0445

2835	0.0646	0.0443
3109	0.0652	0.0439
3411	0.0662	0.0438
3685	0.0672	0.0439
3975	0.0679	0.0437
4263	0.0695	0.0438
4569	0.0705	0.0435
4885	0.0724	0.0435
5141	0.0736	0.0438
5442	0.0750	0.0438
5746	0.0770	0.0439
6045	0.0787	0.0439
6352	0.0795	0.0438
6629	0.0802	0.0437
6913	0.0809	0.0437

Master Airscrew		
Scimitar		
9×7		
Figs. 5.443–5.444		
Run: pg0907		

Ω	C_T	C_P

<

4931	0.0908	0.0509
5230	0.0928	0.0510
5501	0.0940	0.0509
5788	0.0961	0.0510
6038	0.0983	0.0514
6350	0.0997	0.0516
6617	0.1002	0.0513

**Master Airscrew
Scimitar
11×7**
Figs. 5.467–5.468
Run: jb0680

Ω	C_T	C_P
2006	0.0790	0.0458
2282	0.0818	0.0471
2609	0.0837	0.0459
2849	0.0854	0.0457
3122	0.0873	0.0460
3401	0.0883	0.0458
3695	0.0899	0.0452
3964	0.0911	0.0450
4259	0.0919	0.0444
4532	0.0932	0.0442
4828	0.0949	0.0442
5093	0.0959	0.0438
5393	0.0976	0.0438
5651	0.0985	0.0438
5928	0.0998	0.0440
6205	0.1013	0.0441

**Master Airscrew
Scimitar
11×8**
Figs. 5.473–5.474
Run: rd0672

Ω	C_T	C_P
1998	0.0959	0.0558
2285	0.1012	0.0561
2530	0.0995	0.0524
2824	0.1040	0.0525
3077	0.1074	0.0527
3351	0.1075	0.0522
3623	0.1100	0.0522
3862	0.1117	0.0523
4141	0.1110	0.0519
4407	0.1123	0.0521
4690	0.1120	0.0516
4942	0.1118	0.0516
5220	0.1118	0.0516
5468	0.1109	0.0511
5733	0.1116	0.0512
6030	0.1110	0.0509

Master Airscrew
Scimitar
11×6
Figs. 5.461–5.462
Run: kt0696

Ω	C_T	C_P
2197	0.0686	0.0407
2488	0.0702	0.0404
2791	0.0711	0.0401
3060	0.0725	0.0401
3343	0.0741	0.0401
3630	0.0754	0.0397
3908	0.0769	0.0395
4180	0.0787	0.0394
4448	0.0808	0.0394
4736	0.0830	0.0393
5020	0.0846	0.0393
5294	0.0863	0.0392
5566	0.0876	0.0392
5842	0.0890	0.0395
6127	0.0899	0.0395
6416	0.0910	0.0396

Appendix C

Tabulated Performance Data

Appendix C presents the tabular form of the performance data for all of the propellers tested. For each propeller, the figure numbers that the data corresponds to are provided. Since the performance data was obtained with several wind tunnel runs, the data for each propeller is separated into several sets. For each data set, the run number and the average propeller speed is provided. The individual sets give the thrust and power coefficients, as well as the efficiency, for each advance ratio tested.

APC				Run: kt1038
Slow Flyer				Avg RPM: 6819
9×4.7				J
Figs. 5.2–5.4				C_T
Run: kt1033				C_P
Avg RPM: 4008				η
J	C_T	C_P	η	
0.162	0.0936	0.0510	0.298	0.243
0.200	0.0875	0.0499	0.351	0.270
0.243	0.0809	0.0491	0.401	0.296
0.283	0.0742	0.0478	0.440	0.321
0.330	0.0654	0.0462	0.467	0.352
0.366	0.0582	0.0446	0.477	0.382
0.413	0.0482	0.0422	0.472	0.404
0.442	0.0418	0.0405	0.456	0.432
0.488	0.0306	0.0372	0.401	0.458
0.535	0.0183	0.0336	0.292	0.482
0.574	0.0075	0.0302	0.142	0.513
0.600	0.0000	0.0279	-0.001	0.540
0.647	-0.0145	0.0232	-0.405	0.593
0.690	-0.0281	0.0186	-1.043	0.623
0.730	-0.0409	0.0143	-2.086	0.644
0.777	-0.0572	0.0085	-5.237	0.671
Run: kt1034				Run: kt1036
Avg RPM: 5013				Avg RPM: 6004
J	C_T	C_P	η	J
0.128	0.0993	0.0513	0.249	0.456
0.161	0.0939	0.0503	0.300	0.0347
0.193	0.0891	0.0498	0.345	0.0370
0.228	0.0832	0.0488	0.389	0.427
0.259	0.0780	0.0478	0.423	0.484
0.296	0.0717	0.0469	0.453	0.509
0.326	0.0657	0.0457	0.469	0.540
0.361	0.0585	0.0441	0.479	0.567
0.388	0.0529	0.0427	0.480	0.594
0.421	0.0452	0.0406	0.468	0.615
0.460	0.0361	0.0382	0.435	0.652
0.487	0.0292	0.0362	0.392	0.683
0.519	0.0208	0.0337	0.320	0.711
0.548	0.0127	0.0314	0.221	0.735
0.585	0.0018	0.0281	0.037	0.754
0.616	-0.0077	0.0251	-0.190	0.0571
0.647	-0.0172	0.0221	-0.504	0.0090
Run: kt1035				Run: kt1037
Avg RPM: 6029				Avg RPM: 6815
J	C_T	C_P	η	J
0.105	0.1027	0.0512	0.211	0.092
0.135	0.0982	0.0506	0.261	0.1039
0.160	0.0942	0.0500	0.301	0.0507
0.188	0.0895	0.0492	0.343	0.119
0.217	0.0847	0.0484	0.379	0.0963
Run: kt1038				Run: kt1039
Avg RPM: 6819				Avg RPM: 4016
J	C_T	C_P	η	J
0.243	0.0801	0.0476	0.410	0.158
0.270	0.0753	0.0468	0.435	0.198
0.296	0.0707	0.0460	0.454	0.240
0.321	0.0657	0.0450	0.469	0.276
0.352	0.0591	0.0435	0.479	0.325
0.382	0.0525	0.0419	0.480	0.361
0.404	0.0477	0.0407	0.474	0.401
0.432	0.0409	0.0388	0.456	0.442
0.458	0.0346	0.0370	0.427	0.480
0.482	0.0281	0.0352	0.385	0.519
0.513	0.0196	0.0328	0.306	0.548
0.540	0.0119	0.0306	0.209	0.568
0.593	-0.0067			0.0006
0.623	-0.0163			0.0269
0.644	-0.0232			0.014
0.671	-0.0317			0.474
0.691	-0.0384			0.0153
0.718	-0.0476			-1.226
0.741	-0.0558			-1.731
0.761	-0.0626			-2.751
Run: kt1039				Run: kt1040
Avg RPM: 4016				Avg RPM: 5022
J	C_T	C_P	η	J
0.158	0.1296	0.0798	0.256	0.126
0.198	0.1231	0.0788	0.309	0.159
0.240	0.1156	0.0770	0.360	0.192
0.276	0.1091	0.0754	0.399	0.225
0.325	0.1006	0.0735	0.445	0.255
0.361	0.0932	0.0714	0.471	0.285
0.401	0.0866	0.0700	0.496	0.315
0.442	0.0788	0.0678	0.514	0.345
0.478	0.0721	0.0659	0.523	0.375
0.521	0.0628	0.0625	0.524	0.405
0.555	0.0555	0.0598	0.515	0.435
0.600	0.0454	0.0560	0.487	0.465
0.648	0.0336	0.0510	0.427	0.495
0.678	0.0266	0.0481	0.375	0.525
0.722	0.0145	0.0426	0.246	0.555
0.760	0.0032	0.0373	0.066	0.585
0.807	-0.0103	0.0312	-0.267	0.615
Run: kt1040				Run: kt1041
Avg RPM: 5022				Avg RPM: 6029
J	C_T	C_P	η	J
0.126	0.1402	0.0852	0.207	0.126
0.159	0.1367	0.0850	0.255	0.159
0.192	0.1324	0.0847	0.300	0.192
0.225	0.1271	0.0840	0.341	0.225
0.255	0.1214	0.0827	0.375	0.255

0.290	0.1146	0.0809	0.411	Run: kt0984	0.566	0.0661	0.0699	0.535	
0.320	0.1088	0.0794	0.439	Avg RPM: 6022	0.589	0.0611	0.0679	0.530	
0.352	0.1021	0.0773	0.465	J	C_T	C_P	η	0.616	
0.383	0.0961	0.0757	0.486	0.453	0.0877	0.0764	0.520	0.644	
0.414	0.0902	0.0741	0.504	0.479	0.0817	0.0741	0.528	0.669	
0.448	0.0832	0.0718	0.519	0.505	0.0766	0.0725	0.534	0.689	
0.479	0.0771	0.0700	0.527	0.531	0.0709	0.0703	0.536	0.712	
0.512	0.0698	0.0672	0.532	0.557	0.0654	0.0682	0.533	0.735	
0.541	0.0636	0.0650	0.530	0.580	0.0601	0.0662	0.527	0.768	
0.576	0.0560	0.0620	0.520	0.616	0.0521	0.0629	0.510	0.788	
0.605	0.0496	0.0596	0.503	0.639	0.0466	0.0606	0.491	0.819	
0.639	0.0412	0.0560	0.470	0.663	0.0407	0.0580	0.465	0.838	
Run: kt0982				0.689	0.0341	0.0550	0.427	0.866	
Avg RPM: 5006				0.714	0.0275	0.0518	0.379	0.885	
	J	C_T	C_P	η	0.743	0.0194	0.0478	0.301	0.912
0.541	0.0631	0.0646	0.528	0.773	0.0104	0.0435	0.185	0.940	
0.574	0.0561	0.0621	0.519	0.804	0.0008	0.0387	0.016	0.965	
0.609	0.0480	0.0588	0.497	0.825	-0.0057	0.0355	-0.133		
0.635	0.0421	0.0565	0.473	0.862	-0.0180	0.0292	-0.532		
0.673	0.0326	0.0523	0.420	0.878	-0.0229	0.0266	-0.756		
0.697	0.0266	0.0496	0.373	0.911	-0.0345	0.0206	-1.527		
0.737	0.0153	0.0442	0.255	0.940	-0.0441	0.0156	-2.664		
0.768	0.0063	0.0401	0.120	0.965	-0.0526	0.0110	-4.600		
0.807	-0.0058	0.0342	-0.136	Run: kt0985					
0.833	-0.0143	0.0300	-0.396	Avg RPM: 6523					
0.872	-0.0272	0.0235	-1.009	J	C_T	C_P	η	Run: kt0836	
0.904	-0.0370	0.0184	-1.814	0.101	0.1499	0.0931	0.163	Avg RPM: 4014	
0.933	-0.0471	0.0135	-3.267	0.124	0.1480	0.0931	0.197	J	
0.965	-0.0581	0.0078	-7.217	0.148	0.1459	0.0931	0.232	C_T	
Run: kt0983				0.170	0.1430	0.0924	0.263	C_P	
Avg RPM: 6017				0.197	0.1406	0.0926	0.299	η	
	J	C_T	C_P	η	0.221	0.1382	0.0927	0.329	Run: kt0837
0.107	0.1468	0.0901	0.174	0.247	0.1347	0.0923	0.360	Avg RPM: 5018	
0.139	0.1442	0.0902	0.222	0.273	0.1308	0.0918	0.389	J	
0.158	0.1419	0.0900	0.250	0.296	0.1269	0.0913	0.411	C_T	
0.185	0.1392	0.0899	0.286	0.321	0.1221	0.0901	0.436	C_P	
0.215	0.1358	0.0899	0.325	0.349	0.1148	0.0874	0.458	η	
0.241	0.1325	0.0896	0.356	0.372	0.1098	0.0860	0.475	Run: kt0986	
0.268	0.1279	0.0888	0.386	0.393	0.1050	0.0844	0.490	Avg RPM: 6514	
0.293	0.1229	0.0877	0.411	0.416	0.0995	0.0824	0.502	J	
0.322	0.1172	0.0863	0.437	0.444	0.0933	0.0802	0.517	C_T	
0.348	0.1112	0.0842	0.459	0.468	0.0880	0.0782	0.526	C_P	
0.379	0.1044	0.0820	0.482	0.491	0.0831	0.0765	0.532	η	
0.404	0.0989	0.0803	0.498	Run: kt0986					
0.431	0.0928	0.0782	0.511	Avg RPM: 6514					
0.452	0.0883	0.0767	0.521	J	C_T	C_P	η	Run: kt0838	
0.478	0.0825	0.0746	0.529	0.420	0.0979	0.0814	0.505	Avg RPM: 5018	
0.504	0.0771	0.0728	0.534	0.444	0.0927	0.0796	0.517	J	
0.528	0.0717	0.0708	0.535	0.468	0.0879	0.0781	0.526	C_T	
				0.490	0.0826	0.0761	0.532	C_P	
				0.513	0.0778	0.0744	0.536	η	
				0.543	0.0712	0.0719	0.538	Run: kt0839	

Run: rd0838				Run: rd0841			
Avg RPM: 4997				Avg RPM: 6512			
J	C_T	C_P	η	J	C_T	C_P	η
0.488	0.0339	0.0367	0.451	0.089	0.1171	0.0574	0.182
0.520	0.0253	0.0341	0.387	0.112	0.1139	0.0573	0.222
0.548	0.0180	0.0319	0.309	0.134	0.1094	0.0562	0.262
0.576	0.0098	0.0293	0.193	0.156	0.1064	0.0560	0.296
0.605	0.0012	0.0265	0.026	0.176	0.1020	0.0549	0.327
0.637	-0.0082	0.0236	-0.222	0.199	0.0978	0.0541	0.359
0.662	-0.0162	0.0209	-0.513	0.225	0.0930	0.0530	0.395
0.693	-0.0258	0.0177	-1.011	0.246	0.0888	0.0521	0.420
0.720	-0.0344	0.0148	-1.681	0.266	0.0847	0.0510	0.442
0.750	-0.0445	0.0115	-2.915	0.287	0.0813	0.0505	0.463
0.783	-0.0554	0.0080	-5.435	0.309	0.0777	0.0498	0.482
Run: rd0839				0.332	0.0729	0.0488	0.496
Avg RPM: 6023				0.358	0.0680	0.0477	0.511
J	C_T	C_P	η	0.379	0.0638	0.0466	0.518
0.095	0.1140	0.0561	0.193	0.396	0.0600	0.0454	0.522
0.121	0.1100	0.0556	0.239	0.421	0.0542	0.0436	0.522
0.146	0.1052	0.0547	0.281	0.445	0.0484	0.0418	0.515
0.169	0.1011	0.0539	0.317	Run: rd0842			
0.192	0.0969	0.0531	0.350	Avg RPM: 6513			
0.217	0.0922	0.0521	0.384	J	C_T	C_P	η
0.240	0.0886	0.0515	0.414	0.378	0.0632	0.0463	0.516
0.267	0.0835	0.0504	0.443	0.400	0.0584	0.0449	0.521
0.290	0.0795	0.0496	0.465	0.421	0.0542	0.0437	0.522
0.316	0.0750	0.0487	0.486	0.441	0.0492	0.0421	0.516
0.334	0.0714	0.0480	0.497	0.466	0.0434	0.0402	0.502
0.358	0.0665	0.0469	0.509	0.487	0.0381	0.0386	0.481
0.381	0.0618	0.0456	0.516	0.507	0.0328	0.0369	0.451
0.408	0.0558	0.0438	0.519	0.532	0.0262	0.0349	0.400
0.431	0.0505	0.0422	0.516	0.552	0.0204	0.0331	0.341
0.454	0.0452	0.0406	0.505	0.580	0.0121	0.0304	0.231
0.477	0.0395	0.0388	0.485	0.600	0.0063	0.0286	0.133
Run: rd0840				0.619	0.0002	0.0265	0.004
Avg RPM: 6020				0.646	-0.0082	0.0238	-0.223
J	C_T	C_P	η	0.666	-0.0143	0.0217	-0.441
0.408	0.0553	0.0435	0.518	0.692	-0.0228	0.0189	-0.835
0.433	0.0500	0.0421	0.514	0.709	-0.0282	0.0171	-1.174
0.458	0.0438	0.0401	0.501	0.736	-0.0371	0.0140	-1.944
0.480	0.0385	0.0385	0.481	0.756	-0.0440	0.0116	-2.859
0.508	0.0314	0.0363	0.440	Run: kt0828			
Avg RPM: 3008				Avg RPM: 4011			
J	C_T	C_P	η	J	C_T	C_P	η
0.193	0.1211	0.0747	0.312	0.145	0.1347	0.0797	0.245
0.237	0.1130	0.0726	0.368	0.180	0.1293	0.0789	0.295
0.282	0.1052	0.0709	0.419	0.215	0.1239	0.0780	0.341
0.335	0.0961	0.0690	0.467	0.251	0.1174	0.0767	0.385
0.383	0.0875	0.0669	0.501	0.287	0.1113	0.0753	0.425
0.433	0.0780	0.0643	0.525	0.328	0.1035	0.0731	0.464
0.487	0.0669	0.0607	0.537	0.361	0.0966	0.0712	0.490
0.528	0.0584	0.0577	0.535	0.390	0.0907	0.0694	0.510
0.574	0.0488	0.0539	0.519	0.438	0.0816	0.0669	0.534
0.629	0.0358	0.0488	0.462	0.469	0.0755	0.0649	0.545
0.660	0.0281	0.0457	0.407	0.502	0.0687	0.0626	0.550
0.718	0.0127	0.0390	0.234	0.539	0.0613	0.0600	0.551
0.774	-0.0040	0.0311	-0.100	0.569	0.0540	0.0571	0.538
0.800	-0.0114	0.0277	-0.331	0.612	0.0445	0.0535	0.510
0.863	-0.0307	0.0183	-1.449	0.648	0.0355	0.0497	0.463
0.912	-0.0461	0.0108	-3.894	0.675	0.0289	0.0468	0.416
Run: kt0829				0.719	0.0163	0.0410	0.285
Avg RPM: 3999				Run: kt0830			
J	C_T	C_P	η	J	C_T	C_P	η
0.607	0.0453	0.0536	0.513	0.607	0.0453	0.0536	0.513
0.647	0.0356	0.0495	0.464	0.647	0.0356	0.0495	0.464
0.676	0.0292	0.0471	0.419	0.676	0.0292	0.0471	0.419
0.720	0.0163	0.0411	0.286	0.720	0.0163	0.0411	0.286
0.752	0.0068	0.0366	0.140	0.752	0.0068	0.0366	0.140

0.790	-0.0043	0.0315	-0.109	0.191	0.1403	0.0876	0.306	0.358	0.0248	0.0246	0.361
0.822	-0.0144	0.0265	-0.447	0.214	0.1383	0.0880	0.337	0.395	0.0161	0.0233	0.273
0.861	-0.0270	0.0202	-1.150	0.240	0.1347	0.0878	0.368	0.442	0.0038	0.0214	0.079
0.896	-0.0376	0.0148	-2.279	0.265	0.1298	0.0868	0.396	0.487	-0.0082	0.0193	-0.208
0.941	-0.0525	0.0075	-6.556	0.287	0.1257	0.0860	0.420	0.531	-0.0201	0.0172	-0.621
Run: kt0831				0.313	0.1215	0.0853	0.446	0.573	-0.0327	0.0150	-1.253
Avg RPM: 5003				0.335	0.1163	0.0837	0.466	0.615	-0.0454	0.0126	-2.209
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η				0.664	-0.0607	0.0095	-4.234
0.114	0.1431	0.0831	0.197	0.356	0.1121	0.0825	0.483	0.704	-0.0740	0.0068	-7.668
0.147	0.1405	0.0837	0.247	0.382	0.1058	0.0804	0.503				
0.173	0.1372	0.0834	0.285	0.409	0.0992	0.0780	0.521				
0.202	0.1329	0.0831	0.324	0.431	0.0946	0.0765	0.533				
0.230	0.1279	0.0822	0.358	0.454	0.0885	0.0740	0.543				
0.261	0.1236	0.0817	0.396	0.476	0.0839	0.0723	0.552				
0.291	0.1182	0.0806	0.426								
0.318	0.1117	0.0785	0.452	Run: kt0834							
0.342	0.1074	0.0774	0.474	Avg RPM: 6014							
0.370	0.1018	0.0758	0.497		<i>J</i>	<i>C_T</i>	<i>C_P</i>	η			
0.398	0.0956	0.0738	0.515	0.233	0.0532	0.0286	0.433				
0.430	0.0881	0.0711	0.533	0.408	0.0990	0.0777	0.520	0.264	0.0475	0.0278	0.451
0.456	0.0824	0.0690	0.544	0.429	0.0944	0.0761	0.533	0.299	0.0405	0.0269	0.451
0.483	0.0774	0.0676	0.553	0.452	0.0894	0.0744	0.544	0.329	0.0340	0.0260	0.431
0.517	0.0704	0.0651	0.559	0.479	0.0829	0.0717	0.554	0.361	0.0267	0.0249	0.388
0.543	0.0650	0.0633	0.557	0.501	0.0782	0.0700	0.560	0.394	0.0189	0.0238	0.313
0.579	0.0568	0.0600	0.548	0.523	0.0737	0.0685	0.563	0.427	0.0105	0.0224	0.199
Run: kt0832				0.550	0.0674	0.0660	0.562	0.464	0.0007	0.0207	0.015
Avg RPM: 5006				0.573	0.0632	0.0647	0.560	0.498	-0.0085	0.0191	-0.220
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η				0.529	-0.0174	0.0175	-0.527
0.485	0.0765	0.0672	0.553	0.595	0.0578	0.0623	0.552	0.563	-0.0272	0.0158	-0.970
0.514	0.0710	0.0654	0.558	0.625	0.0505	0.0592	0.533	0.595	-0.0372	0.0139	-1.589
0.544	0.0642	0.0628	0.557	0.647	0.0457	0.0570	0.518	0.622	-0.0454	0.0123	-2.298
0.570	0.0585	0.0605	0.551	0.667	0.0403	0.0546	0.493	0.657	-0.0565	0.0101	-3.691
0.604	0.0507	0.0574	0.534	0.698	0.0319	0.0505	0.441				
0.632	0.0442	0.0548	0.510	0.713	0.0273	0.0483	0.404				
0.664	0.0359	0.0509	0.468	0.739	0.0203	0.0449	0.333				
0.687	0.0299	0.0483	0.425	0.768	0.0118	0.0409	0.222				
0.721	0.0204	0.0438	0.335	0.788	0.0054	0.0377	0.113				
0.751	0.0118	0.0399	0.221	0.808	-0.0014	0.0341	-0.034				
0.774	0.0051	0.0368	0.108	0.842	-0.0119	0.0287	-0.349				
0.803	-0.0039	0.0323	-0.097	0.858	-0.0170	0.0262	-0.555				
0.831	-0.0129	0.0278	-0.383	0.887	-0.0263	0.0213	-1.094				
0.866	-0.0240	0.0221	-0.941	0.911	-0.0344	0.0171	-1.834				
0.893	-0.0324	0.0178	-1.628	0.937	-0.0429	0.0127	-3.164				
0.924	-0.0424	0.0128	-3.056	0.960	-0.0508	0.0086	-5.683				
0.954	-0.0524	0.0076	-6.611								
Run: kt0833											
Avg RPM: 6006											
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η							
0.092	0.1521	0.0883	0.158								
0.120	0.1486	0.0881	0.203								
0.149	0.1455	0.0881	0.246								
0.168	0.1428	0.0878	0.274								

APC			
Slow Flyer			
11×3.8			
Figs. 5.26–5.28			

0.419	0.0156	0.0233	0.281
0.446	0.0086	0.0221	0.172
0.473	0.0011	0.0208	0.025
0.497	-0.0058	0.0195	-0.148
0.524	-0.0133	0.0182	-0.383

Run: kt0547

Avg RPM: 4995

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.446	0.0081	0.0221	0.163
0.471	0.0013	0.0209	0.030
0.499	-0.0065	0.0195	-0.167
0.529	-0.0150	0.0179	-0.444
0.555	-0.0226	0.0165	-0.759
0.581	-0.0308	0.0149	-1.202
0.607	-0.0389	0.0133	-1.776
0.628	-0.0456	0.0119	-2.412
0.656	-0.0546	0.0101	-3.565
0.681	-0.0628	0.0084	-5.121

Run: kt0548

Avg RPM: 6011

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.090	0.0833	0.0339	0.221
0.111	0.0804	0.0337	0.265
0.134	0.0773	0.0334	0.309
0.153	0.0744	0.0331	0.345
0.174	0.0710	0.0327	0.378
0.196	0.0673	0.0322	0.410
0.221	0.0630	0.0316	0.440
0.242	0.0591	0.0310	0.462
0.261	0.0554	0.0303	0.478
0.287	0.0502	0.0293	0.490
0.308	0.0459	0.0286	0.493
0.329	0.0411	0.0278	0.488
0.352	0.0356	0.0268	0.467
0.372	0.0311	0.0262	0.441
0.392	0.0257	0.0252	0.400
0.415	0.0199	0.0243	0.340
0.434	0.0148	0.0234	0.275

Run: kt0549

Avg RPM: 6002

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.369	0.0315	0.0261	0.444
0.393	0.0254	0.0251	0.398
0.415	0.0196	0.0241	0.337
0.436	0.0141	0.0232	0.265
0.460	0.0074	0.0220	0.155
0.479	0.0022	0.0211	0.051
0.501	-0.0045	0.0198	-0.114
0.528	-0.0124	0.0182	-0.358
0.550	-0.0186	0.0171	-0.597
0.571	-0.0249	0.0158	-0.896
0.593	-0.0317	0.0145	-1.300

0.614	-0.0387	0.0130	-1.824
0.636	-0.0455	0.0116	-2.495
0.659	-0.0533	0.0099	-3.540

0.694	-0.0392	0.0131	-2.078
0.719	-0.0478	0.0107	-3.227
0.753	-0.0590	0.0077	-5.785

APC

Slow Flyer

11×4.7

Figs. 5.32–5.34

Run: pg0530

Avg RPM: 5003

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.103	0.1040	0.0460	0.233
0.132	0.0990	0.0451	0.290
0.156	0.0954	0.0446	0.334
0.183	0.0909	0.0440	0.378
0.212	0.0865	0.0434	0.422
0.237	0.0822	0.0428	0.455
0.264	0.0772	0.0419	0.487
0.291	0.0724	0.0410	0.514
0.319	0.0670	0.0400	0.535
0.345	0.0618	0.0387	0.550
0.370	0.0564	0.0374	0.558
0.397	0.0502	0.0358	0.557
0.420	0.0452	0.0346	0.550
0.447	0.0385	0.0328	0.524
0.472	0.0321	0.0313	0.484
0.500	0.0245	0.0294	0.415
0.525	0.0174	0.0278	0.328

Run: pg0531

Avg RPM: 4997

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.447	0.0381	0.0327	0.521
0.475	0.0305	0.0308	0.472
0.497	0.0246	0.0293	0.417
0.524	0.0173	0.0277	0.327
0.551	0.0093	0.0257	0.199
0.581	0.0001	0.0234	0.003
0.607	-0.0080	0.0213	-0.227
0.629	-0.0150	0.0194	-0.484
0.660	-0.0254	0.0168	-0.999
0.685	-0.0335	0.0146	-1.576
0.714	-0.0432	0.0119	-2.587
0.739	-0.0518	0.0096	-3.997
0.764	-0.0607	0.0070	-6.602

Run: pg0532

Avg RPM: 6006

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.087	0.1127	0.0493	0.200
0.107	0.1094	0.0488	0.239
0.134	0.1044	0.0480	0.291
0.155	0.1004	0.0472	0.329
0.176	0.0966	0.0465	0.365
0.197	0.0928	0.0458	0.398
0.218	0.0887	0.0450	0.430
0.241	0.0849	0.0445	0.461
0.264	0.0805	0.0436	0.487
0.288	0.0762	0.0427	0.513

0.310	0.0718	0.0417	0.533	Run: kt0634	0.263	0.1293	0.0797	0.426
0.330	0.0677	0.0409	0.547	Avg RPM: 3005	0.289	0.1238	0.0784	0.456
0.348	0.0638	0.0399	0.556	J	C_T	C_P	η	0.315
0.373	0.0585	0.0385	0.567	0.742	0.0076	0.0329	0.171	0.343
0.392	0.0542	0.0373	0.569	0.784	-0.0058	0.0269	-0.170	0.369
0.416	0.0486	0.0358	0.565	0.830	-0.0203	0.0204	-0.823	0.390
0.437	0.0434	0.0344	0.552	0.875	-0.0354	0.0137	-2.255	0.419
				0.910	-0.0469	0.0087	-4.920	0.444
Run: pg0533								0.469
Avg RPM: 6004				Run: kt0635				0.494
	J	C_T	C_P	Avg RPM: 4017	J	C_T	C_P	η
0.369	0.0592	0.0388	0.563	0.126	0.1446	0.0774	0.235	0.524
0.394	0.0532	0.0371	0.565	0.165	0.1394	0.0773	0.297	0.494
0.413	0.0489	0.0359	0.563	0.198	0.1341	0.0769	0.345	0.469
0.437	0.0433	0.0343	0.550	0.228	0.1283	0.0759	0.386	0.449
0.458	0.0377	0.0329	0.525	0.261	0.1209	0.0740	0.427	0.424
0.480	0.0318	0.0314	0.486	0.296	0.1144	0.0723	0.468	0.404
0.501	0.0262	0.0300	0.436	0.331	0.1065	0.0701	0.503	0.384
0.529	0.0178	0.0280	0.336	0.363	0.1000	0.0683	0.531	0.364
0.546	0.0124	0.0266	0.253	0.390	0.0953	0.0672	0.553	0.344
0.572	0.0047	0.0247	0.108	0.427	0.0876	0.0650	0.576	0.324
0.590	-0.0011	0.0232	-0.028	0.460	0.0807	0.0626	0.593	0.304
0.616	-0.0094	0.0210	-0.276	0.496	0.0737	0.0604	0.605	0.284
0.638	-0.0166	0.0191	-0.556	0.523	0.0683	0.0587	0.608	0.264
0.658	-0.0235	0.0172	-0.899	0.558	0.0606	0.0560	0.604	0.244
0.681	-0.0309	0.0153	-1.377	0.583	0.0552	0.0539	0.597	0.224
0.702	-0.0382	0.0133	-2.017	0.624	0.0451	0.0498	0.565	0.204
0.725	-0.0458	0.0112	-2.976	0.655	0.0370	0.0463	0.524	0.184
0.746	-0.0531	0.0091	-4.364					0.164

APC
Slow Flyer
11×7
Figs. 5.38–5.40

Run: kt0633								
Avg RPM: 3013								
	J	C_T	C_P	η				
0.177	0.1284	0.0716	0.318	0.622	0.0450	0.0496	0.564	Run: kt0640
0.217	0.1215	0.0704	0.375	0.654	0.0369	0.0463	0.522	Avg RPM: 5513
0.261	0.1134	0.0687	0.431	0.688	0.0279	0.0425	0.452	J
0.305	0.1054	0.0668	0.481	0.718	0.0191	0.0388	0.354	C_T
0.352	0.0970	0.0649	0.526	0.754	0.0080	0.0339	0.177	C_P
0.393	0.0894	0.0629	0.558	0.785	-0.0023	0.0292	-0.063	η
0.442	0.0799	0.0604	0.585	0.818	-0.0128	0.0244	-0.428	0.407
0.479	0.0731	0.0585	0.599	0.852	-0.0239	0.0193	-1.054	0.431
0.524	0.0633	0.0550	0.604	0.886	-0.0353	0.0141	-2.218	0.450
0.562	0.0556	0.0524	0.597	0.924	-0.0485	0.0083	-5.432	0.476
0.614	0.0435	0.0478	0.560					0.498
0.652	0.0343	0.0442	0.507					0.520
0.702	0.0203	0.0383	0.372					0.549
0.742	0.0087	0.0333	0.193					0.571
0.787	-0.0057	0.0270	-0.167					0.592
0.832	-0.0202	0.0205	-0.822					0.624
0.878	-0.0356	0.0135	-2.312					0.642

Run: kt0634	0.263	0.1293	0.0797	0.426
Avg RPM: 3005	0.289	0.1238	0.0784	0.456
J	C_T	C_P	η	0.315
0.742	0.0076	0.0329	0.171	0.343
0.784	-0.0058	0.0269	-0.170	0.369
0.830	-0.0203	0.0204	-0.823	0.390
0.875	-0.0354	0.0137	-2.255	0.419
0.910	-0.0469	0.0087	-4.920	0.444
				0.469
Run: pg0533	0.469	0.0838	0.0657	0.598
Avg RPM: 6004	0.494	0.0785	0.0639	0.606
J	C_T	C_P	η	0.524
0.126	0.1446	0.0774	0.235	0.494
0.165	0.1394	0.0773	0.297	0.524
0.198	0.1341	0.0769	0.345	0.474
0.228	0.1283	0.0759	0.386	0.494
0.261	0.1209	0.0740	0.427	0.524
0.296	0.1144	0.0723	0.468	0.554
0.331	0.1065	0.0701	0.503	0.584
0.363	0.1000	0.0683	0.531	0.614
0.390	0.0953	0.0672	0.553	0.644
0.427	0.0876	0.0650	0.576	0.674
0.460	0.0807	0.0626	0.593	0.704
0.496	0.0737	0.0604	0.605	0.734
0.523	0.0683	0.0587	0.608	0.764
0.558	0.0606	0.0560	0.604	0.794
0.583	0.0552	0.0539	0.597	0.824
0.624	0.0451	0.0498	0.565	0.854
0.655	0.0370	0.0463	0.524	0.884

Run: kt0636	0.816	-0.0082	0.0268	-0.250
Avg RPM: 3999	0.843	-0.0170	0.0227	-0.632
J	C_T	C_P	η	0.871
0.555	0.0608	0.0559	0.603	0.896
0.591	0.0529	0.0529	0.591	0.921
0.622	0.0450	0.0496	0.564	0.441
0.654	0.0369	0.0463	0.522	0.411
0.688	0.0279	0.0425	0.452	0.381
0.718	0.0191	0.0388	0.354	0.351
0.754	0.0080	0.0339	0.177	0.321
0.785	-0.0023	0.0292	-0.063	0.301
0.818	-0.0128	0.0244	-0.428	0.281
0.852	-0.0239	0.0193	-1.054	0.261
0.886	-0.0353	0.0141	-2.218	0.241
0.924	-0.0485	0.0083	-5.432	0.221
				0.201
Run: kt0637	0.571	0.0638	0.0593	0.614
Avg RPM: 5018	0.592	0.0591	0.0574	0.609
J	C_T	C_P	η	0.624
0.104	0.1514	0.0808	0.196	0.642
0.134	0.1484	0.0809	0.245	0.669
0.158	0.1456	0.0809	0.284	0.691
0.184	0.1429	0.0813	0.323	0.719
0.208	0.1395	0.0812	0.357	0.739
0.236	0.1347	0.0807	0.394	0.765

0.784	0.0044	0.0328	0.105	Run: kt1028	0.416	0.0536	0.0455	0.491
0.813	-0.0054	0.0283	-0.154	Avg RPM: 6038	0.438	0.0483	0.0436	0.486
0.838	-0.0136	0.0243	-0.469	J	C_T	C_P	η	
0.858	-0.0202	0.0212	-0.816	0.109	0.0921	0.0482	0.209	
0.886	-0.0301	0.0166	-1.606	0.131	0.0907	0.0483	0.246	
0.908	-0.0380	0.0130	-2.663	0.158	0.0886	0.0486	0.288	
0.934	-0.0471	0.0089	-4.952	0.189	0.0860	0.0489	0.332	
<hr/>				0.212	0.0837	0.0491	0.362	
APC				0.241	0.0809	0.0494	0.394	
Sport Propeller				0.268	0.0779	0.0495	0.421	
9×5				0.292	0.0749	0.0496	0.440	
Figs. 5.44–5.46				0.318	0.0712	0.0494	0.459	
Run: kt1026				0.345	0.0665	0.0487	0.471	
Avg RPM: 4007				0.370	0.0613	0.0475	0.478	
<hr/>				0.397	0.0552	0.0458	0.479	
0.158	0.0846	0.0502	0.267	0.424	0.0489	0.0437	0.474	
0.200	0.0809	0.0504	0.321	0.452	0.0417	0.0409	0.460	
0.243	0.0753	0.0501	0.365	0.477	0.0359	0.0384	0.445	
0.275	0.0707	0.0495	0.392	0.507	0.0288	0.0351	0.415	
0.327	0.0604	0.0472	0.419	0.531	0.0234	0.0326	0.382	
0.360	0.0539	0.0451	0.430	<hr/>				
0.407	0.0443	0.0416	0.433	Run: kt1029				
0.436	0.0384	0.0392	0.428	Avg RPM: 6014				
0.481	0.0290	0.0350	0.399	0.452	0.0410	0.0406	0.456	
0.528	0.0196	0.0306	0.339	0.478	0.0349	0.0379	0.440	
0.562	0.0130	0.0273	0.267	0.506	0.0285	0.0350	0.413	
0.610	0.0035	0.0224	0.095	0.534	0.0225	0.0320	0.375	
0.647	-0.0036	0.0187	-0.124	0.558	0.0173	0.0294	0.328	
0.688	-0.0117	0.0144	-0.561	0.587	0.0109	0.0262	0.245	
0.729	-0.0203	0.0097	-1.524	0.613	0.0051	0.0231	0.136	
Run: kt1027				0.646	-0.0021	0.0191	-0.071	
Avg RPM: 5007				0.666	-0.0062	0.0168	-0.244	
<hr/>				0.698	-0.0128	0.0134	-0.667	
0.128	0.0892	0.0491	0.232	0.727	-0.0190	0.0101	-1.375	
0.160	0.0870	0.0494	0.281	0.748	-0.0228	0.0082	-2.088	
0.195	0.0842	0.0496	0.331	<hr/>				
0.223	0.0815	0.0499	0.364	Run: kt1030				
0.258	0.0776	0.0500	0.400	Avg RPM: 6907				
0.290	0.0728	0.0497	0.425	0.095	0.0940	0.0474	0.189	
0.323	0.0671	0.0488	0.444	0.117	0.0926	0.0478	0.227	
0.353	0.0611	0.0474	0.454	0.139	0.0908	0.0481	0.263	
0.385	0.0534	0.0451	0.455	0.164	0.0886	0.0483	0.301	
0.422	0.0448	0.0420	0.450	0.188	0.0867	0.0486	0.334	
0.448	0.0391	0.0397	0.441	0.212	0.0842	0.0487	0.365	
0.486	0.0312	0.0362	0.419	0.233	0.0822	0.0490	0.391	
0.508	0.0265	0.0339	0.396	0.256	0.0797	0.0492	0.415	
0.545	0.0184	0.0300	0.334	0.279	0.0772	0.0494	0.437	
0.577	0.0117	0.0265	0.254	0.303	0.0743	0.0494	0.455	
0.608	0.0051	0.0231	0.135	0.325	0.0715	0.0494	0.470	
0.640	-0.0013	0.0196	-0.042	0.351	0.0673	0.0489	0.483	
<hr/>				0.374	0.0631	0.0481	0.490	
APC				0.393	0.0590	0.0470	0.493	
Sport Propeller				<hr/>				
9×7				0.393	0.0593	0.0471	0.495	
Figs. 5.50–5.52				0.417	0.0539	0.0455	0.494	
Run: kt1010				0.439	0.0484	0.0436	0.488	
Avg RPM: 3999				0.465	0.0413	0.0408	0.471	
<hr/>				0.486	0.0362	0.0387	0.455	
0.161	0.0999	0.0667	0.241	Run: kt1011				
0.201	0.0981	0.0671	0.293	Avg RPM: 5017				
0.237	0.0957	0.0670	0.338	0.402	0.0768	0.0671	0.460	
0.287	0.0916	0.0675	0.390	0.437	0.0705	0.0659	0.468	
0.325	0.0878	0.0679	0.421	0.482	0.0602	0.0625	0.464	
0.366	0.0825	0.0677	0.445	0.522	0.0508	0.0585	0.453	
0.402	0.0768	0.0671	0.460	0.562	0.0419	0.0545	0.432	
0.449	0.0224	0.0443	0.328	0.593	0.0353	0.0513	0.408	
0.649	0.0149	0.0400	0.255	0.649	0.0224	0.0443	0.328	
0.682	0.0057	0.0341	0.121	0.682	0.0149	0.0400	0.255	
0.721	-0.0033	0.0284	-0.088	0.721	0.0057	0.0341	0.121	
0.762	-0.0123	0.0227	-0.436	0.762	-0.0033	0.0284	-0.088	
0.803	-0.0123	0.0227	-0.436	0.803	-0.0123	0.0227	-0.436	
<hr/>				Run: kt1011				
Avg RPM: 5017				0.127	0.1051	0.0657	0.203	
<hr/>				0.160	0.1032	0.0660	0.250	

0.189	0.1013	0.0662	0.289	Run: kj1014	0.595	0.0464	0.0580	0.476
0.222	0.0994	0.0664	0.333	Avg RPM: 6018	0.625	0.0382	0.0540	0.442
0.259	0.0966	0.0668	0.374	J	C_T	C_P	η	0.647
0.291	0.0937	0.0671	0.406	0.453	0.0751	0.0670	0.508	0.668
0.324	0.0903	0.0673	0.434	0.482	0.0699	0.0660	0.510	0.698
0.355	0.0867	0.0674	0.456	0.507	0.0647	0.0648	0.506	0.720
0.384	0.0832	0.0675	0.474	0.531	0.0592	0.0630	0.500	0.739
0.416	0.0788	0.0673	0.487	0.558	0.0530	0.0606	0.488	0.769
0.451	0.0730	0.0665	0.495	0.588	0.0452	0.0571	0.465	0.790
0.480	0.0669	0.0650	0.494	0.617	0.0376	0.0533	0.435	0.816
0.511	0.0602	0.0629	0.489	0.640	0.0315	0.0501	0.403	0.837
0.545	0.0516	0.0594	0.473	0.666	0.0252	0.0467	0.360	0.864
0.571	0.0451	0.0564	0.457	0.696	0.0180	0.0426	0.294	0.881
0.609	0.0355	0.0517	0.419	0.719	0.0127	0.0394	0.232	0.905
0.641	0.0279	0.0477	0.375	0.752	0.0045	0.0343	0.099	
				0.774	-0.0006	0.0311	-0.016	
				0.807	-0.0085	0.0262	-0.261	
				0.825	-0.0128	0.0236	-0.448	
				0.860	-0.0217	0.0179	-1.041	
				0.884	-0.0274	0.0139	-1.740	
				0.912	-0.0345	0.0091	-3.440	
				Run: kj1015				
				Avg RPM: 6685				
				J	C_T	C_P	η	0.145
				0.095	0.1095	0.0639	0.162	0.181
				0.118	0.1093	0.0640	0.202	0.214
				0.143	0.1091	0.0647	0.242	0.250
				0.167	0.1075	0.0650	0.276	0.292
				0.193	0.1054	0.0653	0.311	0.326
				0.219	0.1031	0.0657	0.343	0.359
				0.241	0.1012	0.0661	0.370	0.399
				0.267	0.0990	0.0665	0.397	0.437
				0.288	0.0972	0.0669	0.418	0.469
				0.312	0.0943	0.0671	0.439	0.505
				0.336	0.0918	0.0673	0.459	0.541
				0.360	0.0885	0.0671	0.475	0.577
				0.383	0.0854	0.0671	0.488	0.619
				0.407	0.0825	0.0669	0.501	0.651
				0.431	0.0793	0.0671	0.509	0.684
				0.455	0.0759	0.0667	0.517	0.722
				0.478	0.0719	0.0663	0.519	
				Run: kj1016				
				Avg RPM: 6708				
				J	C_T	C_P	η	0.114
				0.407	0.0823	0.0671	0.499	0.143
				0.432	0.0793	0.0670	0.511	0.172
				0.456	0.0755	0.0669	0.515	0.200
				0.479	0.0717	0.0663	0.518	0.231
				0.502	0.0674	0.0654	0.518	0.262
				0.524	0.0626	0.0641	0.512	0.290
				0.551	0.0572	0.0625	0.504	0.319
				0.573	0.0516	0.0602	0.492	0.345
								0.373

0.399	0.0718	0.0563	0.509	0.578	0.0329	0.0414	0.460	0.775	-0.0129	0.0164	-0.610
0.437	0.0634	0.0541	0.513	0.600	0.0274	0.0385	0.427	0.802	-0.0196	0.0123	-1.280
0.462	0.0577	0.0521	0.512	0.628	0.0203	0.0347	0.367	0.819	-0.0239	0.0095	-2.062
0.489	0.0503	0.0492	0.501	0.648	0.0159	0.0325	0.316				
0.516	0.0442	0.0466	0.489	0.672	0.0105	0.0296	0.237				
0.549	0.0358	0.0427	0.460	0.696	0.0049	0.0266	0.128				
0.576	0.0289	0.0390	0.426	0.725	-0.0023	0.0225	-0.074				
				0.750	-0.0082	0.0192	-0.322				
				0.772	-0.0136	0.0160	-0.659				
				0.796	-0.0194	0.0123	-1.252				
				0.822	-0.0255	0.0085	-2.477				
Run: pg0805											
Avg RPM: 5001											
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>							
0.485	0.0513	0.0496	0.502								
0.520	0.0425	0.0458	0.482								
0.543	0.0372	0.0433	0.466								
0.577	0.0288	0.0392	0.425								
0.605	0.0222	0.0356	0.378								
0.635	0.0155	0.0320	0.308								
0.662	0.0095	0.0289	0.218								
0.691	0.0030	0.0253	0.083								
0.720	-0.0037	0.0215	-0.124								
0.749	-0.0110	0.0175	-0.472								
0.777	-0.0182	0.0130	-1.085								
0.814	-0.0271	0.0073	-3.032								
Run: pg0808											
Avg RPM: 6496											
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>							
0.087	0.1093	0.0553	0.172								
0.110	0.1077	0.0556	0.212								
0.134	0.1061	0.0559	0.253								
0.157	0.1037	0.0559	0.291								
0.177	0.1021	0.0564	0.321								
0.199	0.0999	0.0565	0.352								
0.223	0.0972	0.0567	0.383								
0.247	0.0949	0.0572	0.409								
0.269	0.0921	0.0571	0.434								
0.291	0.0896	0.0574	0.455								
0.314	0.0871	0.0574	0.476								
0.336	0.0839	0.0572	0.493								
0.358	0.0811	0.0573	0.507								
0.378	0.0781	0.0570	0.518								
0.399	0.0747	0.0565	0.527								
0.421	0.0710	0.0560	0.534								
0.442	0.0678	0.0554	0.541								
Run: pg0796											
Avg RPM: 4003											
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>							
0.145	0.1060	0.0731	0.211								
0.178	0.1060	0.0727	0.260								
0.218	0.1046	0.0724	0.314								
0.253	0.1035	0.0728	0.360								
0.291	0.1021	0.0728	0.408								
0.329	0.0988	0.0733	0.443								
0.365	0.0950	0.0735	0.472								
0.397	0.0912	0.0737	0.492								
0.433	0.0861	0.0732	0.509								
0.468	0.0804	0.0725	0.519								
0.503	0.0740	0.0711	0.523								
0.542	0.0643	0.0677	0.515								
0.579	0.0554	0.0636	0.504								
0.612	0.0464	0.0596	0.477								
0.649	0.0376	0.0548	0.445								
0.685	0.0285	0.0494	0.395								
0.721	0.0201	0.0445	0.326								
Run: pg0807											
Avg RPM: 6019											
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>							
0.406	0.0731	0.0565	0.525								
0.430	0.0688	0.0557	0.531								
0.457	0.0628	0.0541	0.532								
0.480	0.0577	0.0522	0.530								
0.506	0.0513	0.0499	0.520								
0.528	0.0458	0.0475	0.509								
0.558	0.0379	0.0439	0.482								

Run: pg0797			
Avg RPM: 4002			
J	C_T	C_P	η
0.615	0.0453	0.0590	0.473
0.645	0.0384	0.0553	0.448
0.685	0.0283	0.0494	0.392
0.719	0.0203	0.0447	0.327
0.757	0.0118	0.0393	0.227
0.794	0.0031	0.0335	0.073
0.830	-0.0056	0.0280	-0.167
0.865	-0.0140	0.0224	-0.538
0.902	-0.0228	0.0163	-1.262
0.927	-0.0284	0.0124	-2.124

Run: pg0798			
Avg RPM: 5026			
J	C_T	C_P	η
0.110	0.1095	0.0714	0.169
0.142	0.1101	0.0710	0.221
0.171	0.1101	0.0713	0.264
0.201	0.1099	0.0717	0.308
0.231	0.1088	0.0718	0.350
0.260	0.1069	0.0723	0.384
0.290	0.1044	0.0727	0.416
0.319	0.1015	0.0729	0.444
0.345	0.0989	0.0732	0.466
0.378	0.0953	0.0734	0.491
0.401	0.0926	0.0735	0.506
0.431	0.0885	0.0732	0.522
0.459	0.0846	0.0731	0.531
0.487	0.0804	0.0725	0.540
0.514	0.0758	0.0718	0.543
0.546	0.0689	0.0696	0.541
0.575	0.0626	0.0676	0.532

Run: pg0799			
Avg RPM: 5008			
J	C_T	C_P	η
0.487	0.0806	0.0726	0.540
0.514	0.0752	0.0714	0.542
0.553	0.0676	0.0694	0.538
0.574	0.0627	0.0676	0.533
0.604	0.0558	0.0648	0.520
0.639	0.0459	0.0599	0.490
0.661	0.0401	0.0567	0.467
0.697	0.0309	0.0515	0.418
0.726	0.0236	0.0472	0.363
0.754	0.0165	0.0427	0.292
0.783	0.0096	0.0382	0.198
0.813	0.0021	0.0334	0.051
0.840	-0.0047	0.0291	-0.134
0.871	-0.0122	0.0241	-0.440
0.900	-0.0193	0.0191	-0.909
0.928	-0.0263	0.0140	-1.745

Run: pg0800			
Avg RPM: 5998			
J	C_T	C_P	η
0.096	0.1124	0.0702	0.154
0.123	0.1127	0.0698	0.199
0.144	0.1125	0.0696	0.232
0.168	0.1128	0.0701	0.271
0.192	0.1123	0.0705	0.306
0.217	0.1113	0.0712	0.340
0.243	0.1096	0.0717	0.371
0.267	0.1080	0.0724	0.399
0.290	0.1054	0.0724	0.423
0.316	0.1033	0.0730	0.447
0.338	0.1008	0.0730	0.467
0.365	0.0977	0.0731	0.488
0.387	0.0949	0.0731	0.503
0.409	0.0924	0.0731	0.517
0.433	0.0892	0.0731	0.529
0.458	0.0860	0.0730	0.539
0.482	0.0828	0.0729	0.547

Run: pg0801			
Avg RPM: 6009			
J	C_T	C_P	η
0.411	0.0919	0.0731	0.517
0.434	0.0890	0.0731	0.529
0.458	0.0859	0.0729	0.539
0.481	0.0823	0.0725	0.547
0.506	0.0785	0.0720	0.552
0.529	0.0748	0.0714	0.555
0.551	0.0710	0.0706	0.554
0.573	0.0664	0.0692	0.550
0.596	0.0614	0.0674	0.543
0.631	0.0530	0.0639	0.523
0.651	0.0480	0.0616	0.508
0.671	0.0422	0.0585	0.485
0.699	0.0350	0.0546	0.448
0.721	0.0290	0.0509	0.410
0.748	0.0221	0.0466	0.354
0.769	0.0165	0.0430	0.295
0.797	0.0097	0.0388	0.199
0.815	0.0050	0.0358	0.115
0.838	-0.0005	0.0323	-0.014
0.869	-0.0086	0.0270	-0.278
0.886	-0.0127	0.0242	-0.465
0.913	-0.0195	0.0191	-0.931

APC			
Sport Propeller			
11×4			
Figs. 5.68–5.70			
Run: kt0504			
Avg RPM: 3005			
J	C_T	C_P	η
0.174	0.0493	0.0307	0.280
0.215	0.0443	0.0296	0.321
0.267	0.0372	0.0277	0.359
0.300	0.0323	0.0262	0.370
0.361	0.0227	0.0231	0.355
0.393	0.0177	0.0215	0.323
0.439	0.0097	0.0188	0.227
0.488	0.0008	0.0155	0.026
0.536	-0.0085	0.0118	-0.388
0.559	-0.0129	0.0101	-0.710

Run: kt0505			
Avg RPM: 4000			
J	C_T	C_P	η
0.131	0.0593	0.0319	0.244
0.163	0.0552	0.0312	0.289
0.194	0.0510	0.0305	0.325
0.232	0.0455	0.0293	0.361
0.263	0.0410	0.0281	0.384
0.298	0.0355	0.0266	0.397
0.330	0.0309	0.0254	0.402
0.366	0.0253	0.0238	0.390
0.394	0.0207	0.0223	0.365
0.431	0.0143	0.0202	0.304
0.459	0.0094	0.0185	0.233
0.491	0.0034	0.0162	0.103
0.530	-0.0042	0.0131	-0.172
0.557	-0.0100	0.0107	-0.519
0.588	-0.0165	0.0080	-1.216

Run: kt0506			
Avg RPM: 5003			
J	C_T	C_P	η
0.106	0.0688	0.0327	0.222
0.132	0.0643	0.0323	0.264
0.156	0.0609	0.0319	0.298
0.183	0.0571	0.0314	0.333
0.213	0.0527	0.0306	0.366
0.237	0.0487	0.0299	0.387
0.266	0.0441	0.0289	0.405
0.291	0.0400	0.0278	0.418
0.315	0.0360	0.0268	0.423
0.346	0.0313	0.0256	0.422
0.371	0.0270	0.0244	0.411
0.398	0.0224	0.0230	0.387
0.424	0.0181	0.0216	0.354

APC			
Sport Propeller			
11×5			
Figs. 5.74–5.76			
0.450	0.0136	0.0200	0.304
0.471	0.0096	0.0186	0.243
0.498	0.0045	0.0166	0.136
0.523	-0.0004	0.0146	-0.014
Run: jb0508			
Avg RPM: 4998			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.443	0.0145	0.0204	0.315
0.473	0.0091	0.0184	0.233
0.498	0.0044	0.0166	0.131
0.524	-0.0007	0.0145	-0.025
0.551	-0.0060	0.0124	-0.270
0.577	-0.0114	0.0101	-0.653
0.603	-0.0169	0.0078	-1.314
Run: kt0508			
Avg RPM: 6004			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.088	0.0774	0.0333	0.204
0.113	0.0741	0.0333	0.251
0.132	0.0711	0.0330	0.285
0.151	0.0683	0.0329	0.314
0.175	0.0646	0.0323	0.349
0.197	0.0610	0.0320	0.376
0.221	0.0567	0.0313	0.400
0.243	0.0528	0.0306	0.419
0.264	0.0489	0.0297	0.435
0.284	0.0457	0.0291	0.445
0.309	0.0411	0.0281	0.452
0.329	0.0376	0.0273	0.453
0.353	0.0332	0.0263	0.446
0.371	0.0300	0.0253	0.440
0.394	0.0258	0.0241	0.423
0.417	0.0215	0.0226	0.396
0.436	0.0181	0.0215	0.367
Run: kt0509			
Avg RPM: 6002			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.370	0.0302	0.0253	0.441
0.392	0.0262	0.0240	0.427
0.414	0.0220	0.0227	0.401
0.437	0.0177	0.0212	0.365
0.459	0.0137	0.0199	0.317
0.484	0.0089	0.0180	0.238
0.506	0.0049	0.0164	0.150
0.526	0.0007	0.0147	0.024
0.549	-0.0037	0.0128	-0.159
0.571	-0.0081	0.0110	-0.421
0.592	-0.0124	0.0090	-0.810
0.616	-0.0172	0.0069	-1.535
Run: rd0497			
Avg RPM: 3009			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.172	0.0709	0.0406	0.301
0.218	0.0650	0.0396	0.358
0.260	0.0580	0.0380	0.398
0.305	0.0503	0.0359	0.427
0.351	0.0430	0.0339	0.446
0.399	0.0344	0.0309	0.444
0.435	0.0279	0.0282	0.431
0.483	0.0191	0.0245	0.376
0.526	0.0110	0.0208	0.277
0.569	0.0026	0.0173	0.086
0.620	-0.0078	0.0125	-0.389
0.661	-0.0157	0.0085	-1.215
Run: rd0498			
Avg RPM: 3999			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.131	0.0855	0.0420	0.266
0.163	0.0809	0.0418	0.315
0.195	0.0759	0.0415	0.356
0.228	0.0701	0.0408	0.391
0.267	0.0634	0.0395	0.428
0.297	0.0576	0.0381	0.449
0.332	0.0507	0.0363	0.463
0.366	0.0446	0.0346	0.472
0.400	0.0383	0.0324	0.473
0.431	0.0320	0.0299	0.461
0.465	0.0255	0.0273	0.435
0.497	0.0196	0.0248	0.393
0.530	0.0135	0.0223	0.321
0.561	0.0072	0.0195	0.208
0.589	0.0016	0.0170	0.054
0.622	-0.0054	0.0136	-0.246
0.657	-0.0126	0.0099	-0.839
Run: rd0499			
Avg RPM: 5003			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.105	0.0923	0.0416	0.234
0.135	0.0892	0.0419	0.288
0.155	0.0870	0.0420	0.322
0.185	0.0831	0.0420	0.366
0.211	0.0794	0.0419	0.399
0.237	0.0748	0.0414	0.428
0.264	0.0700	0.0407	0.453
0.292	0.0641	0.0396	0.472
0.314	0.0598	0.0387	0.486
Run: rd0500			
Avg RPM: 4998			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.442	0.0336	0.0304	0.490
0.473	0.0275	0.0280	0.464
0.498	0.0226	0.0261	0.431
0.525	0.0173	0.0240	0.379
0.550	0.0122	0.0219	0.308
0.577	0.0066	0.0193	0.196
0.603	0.0013	0.0168	0.046
0.629	-0.0043	0.0141	-0.191
0.656	-0.0101	0.0111	-0.598
0.681	-0.0159	0.0081	-1.336
Run: rd0501			
Avg RPM: 6002			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.087	0.0955	0.0411	0.202
0.109	0.0939	0.0415	0.246
0.130	0.0917	0.0416	0.286
0.153	0.0891	0.0418	0.326
0.173	0.0869	0.0420	0.358
0.198	0.0841	0.0422	0.395
0.221	0.0811	0.0422	0.425
0.242	0.0776	0.0418	0.449
0.265	0.0743	0.0416	0.473
0.283	0.0710	0.0411	0.490
0.304	0.0672	0.0405	0.505
0.327	0.0622	0.0393	0.518
0.350	0.0574	0.0382	0.527
0.371	0.0532	0.0369	0.534
0.394	0.0482	0.0355	0.535
0.413	0.0442	0.0342	0.535
0.437	0.0390	0.0323	0.527
Run: kt0502			
Avg RPM: 6001			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.372	0.0525	0.0367	0.533
0.392	0.0482	0.0353	0.535
0.415	0.0434	0.0337	0.534
0.435	0.0389	0.0321	0.527
0.463	0.0331	0.0301	0.509
0.479	0.0297	0.0289	0.493
0.502	0.0250	0.0271	0.464
0.523	0.0212	0.0257	0.431

0.546	0.0164	0.0236	0.380
0.568	0.0118	0.0216	0.310
0.594	0.0063	0.0191	0.196
0.613	0.0022	0.0171	0.081
0.637	-0.0028	0.0146	-0.124
0.658	-0.0074	0.0123	-0.396
0.682	-0.0126	0.0095	-0.906
0.703	-0.0174	0.0069	-1.770

**APC
Sport Propeller
 11×6
Figs. 5.80–5.82**

Run: rd0489			
Avg RPM: 3012			
J	C_T	C_P	η
0.172	0.0885	0.0513	0.296
0.217	0.0819	0.0506	0.352
0.258	0.0747	0.0491	0.393
0.306	0.0682	0.0477	0.438
0.357	0.0587	0.0453	0.463
0.393	0.0524	0.0433	0.475
0.439	0.0436	0.0399	0.479
0.485	0.0352	0.0365	0.467
0.523	0.0285	0.0336	0.444
0.576	0.0184	0.0288	0.368
0.608	0.0123	0.0260	0.289
0.663	0.0006	0.0202	0.019
0.701	-0.0076	0.0159	-0.337
0.746	-0.0177	0.0104	-1.271

Run: rd0490			
Avg RPM: 4002			
J	C_T	C_P	η
0.130	0.0996	0.0510	0.253
0.165	0.0969	0.0513	0.311
0.195	0.0943	0.0514	0.358
0.228	0.0903	0.0514	0.401
0.263	0.0851	0.0510	0.438
0.299	0.0787	0.0502	0.468
0.331	0.0725	0.0491	0.488
0.361	0.0662	0.0475	0.503
0.397	0.0592	0.0457	0.514
0.431	0.0517	0.0432	0.516
0.463	0.0448	0.0406	0.510
0.498	0.0371	0.0375	0.493
0.530	0.0305	0.0346	0.467
0.562	0.0243	0.0317	0.430
0.589	0.0191	0.0294	0.383
0.622	0.0126	0.0264	0.298
0.655	0.0058	0.0231	0.165

Run: rd0491
Avg RPM: 3997

J	C_T	C_P	η
0.554	0.0255	0.0324	0.436
0.591	0.0185	0.0292	0.374
0.623	0.0122	0.0263	0.289
0.655	0.0056	0.0229	0.159
0.688	-0.0015	0.0192	-0.055
0.721	-0.0085	0.0155	-0.394
0.754	-0.0158	0.0114	-1.050
0.786	-0.0231	0.0069	-2.620

Run: rd0494
Avg RPM: 5992

J	C_T	C_P	η
0.085	0.1074	0.0492	0.186
0.108	0.1060	0.0496	0.231
0.134	0.1039	0.0500	0.279
0.155	0.1021	0.0504	0.315
0.176	0.1000	0.0506	0.348
0.197	0.0980	0.0509	0.379
0.220	0.0955	0.0511	0.411
0.243	0.0932	0.0514	0.440
0.266	0.0904	0.0515	0.466

Run: rd0492

Avg RPM: 5007

J	C_T	C_P	η
0.105	0.1044	0.0498	0.220
0.133	0.1029	0.0505	0.272
0.156	0.1007	0.0506	0.310
0.183	0.0980	0.0509	0.354
0.209	0.0953	0.0511	0.390
0.238	0.0919	0.0513	0.427
0.265	0.0888	0.0514	0.458
0.291	0.0851	0.0514	0.482
0.317	0.0809	0.0511	0.502
0.340	0.0768	0.0504	0.518
0.371	0.0704	0.0490	0.533
0.396	0.0652	0.0476	0.543
0.425	0.0590	0.0458	0.548
0.447	0.0538	0.0440	0.547
0.475	0.0472	0.0416	0.540
0.503	0.0410	0.0391	0.527
0.524	0.0360	0.0369	0.511

Run: rd0495

Avg RPM: 6000

J	C_T	C_P	η
0.373	0.0740	0.0501	0.552
0.394	0.0703	0.0494	0.560
0.414	0.0663	0.0484	0.567
0.436	0.0612	0.0469	0.570
0.458	0.0563	0.0452	0.570
0.481	0.0508	0.0433	0.566
0.504	0.0459	0.0413	0.560
0.527	0.0404	0.0391	0.545
0.550	0.0350	0.0368	0.522
0.569	0.0308	0.0352	0.499
0.593	0.0254	0.0327	0.459
0.617	0.0200	0.0302	0.409
0.634	0.0164	0.0284	0.365
0.660	0.0107	0.0257	0.276
0.680	0.0062	0.0233	0.180
0.705	0.0006	0.0202	0.020
0.725	-0.0037	0.0180	-0.147
0.746	-0.0087	0.0151	-0.430
0.768	-0.0135	0.0123	-0.844
0.789	-0.0185	0.0094	-1.553

APC				0.721	0.0072	0.0272	0.191	0.156	0.1115	0.0573	0.303	
Sport Propeller				0.752	0.0006	0.0235	0.019	0.175	0.1101	0.0577	0.333	
11×7				0.787	-0.0069	0.0191	-0.285	0.197	0.1082	0.0582	0.366	
Figs. 5.86–5.88				0.827	-0.0158	0.0138	-0.950	0.218	0.1059	0.0584	0.395	
				0.857	-0.0225	0.0097	-1.997	0.243	0.1035	0.0588	0.428	
Run: jb0476								0.265	0.1014	0.0592	0.454	
Avg RPM: 3014								0.285	0.0988	0.0592	0.476	
J	C_T		C_P	η				0.309	0.0963	0.0596	0.500	
0.177	0.0959	0.0591	0.287		0.107	0.1119	0.0572	0.209	0.330	0.0934	0.0595	0.518
0.221	0.0910	0.0587	0.342		0.133	0.1107	0.0575	0.257	0.354	0.0909	0.0598	0.537
0.262	0.0852	0.0582	0.383		0.159	0.1092	0.0578	0.300	0.372	0.0878	0.0594	0.550
0.304	0.0794	0.0573	0.420		0.184	0.1074	0.0579	0.342	0.397	0.0844	0.0592	0.566
0.348	0.0734	0.0559	0.458		0.210	0.1055	0.0586	0.378	0.414	0.0813	0.0586	0.574
0.400	0.0645	0.0532	0.485		0.239	0.1025	0.0589	0.416	0.436	0.0777	0.0582	0.582
0.437	0.0585	0.0514	0.498		0.264	0.0996	0.0590	0.446				
0.486	0.0498	0.0482	0.503		0.292	0.0970	0.0595	0.477				
0.518	0.0442	0.0457	0.501		0.319	0.0935	0.0597	0.500				
0.575	0.0328	0.0404	0.467		0.345	0.0894	0.0592	0.521				
0.603	0.0278	0.0379	0.442		0.371	0.0853	0.0588	0.539				
0.666	0.0153	0.0313	0.326		0.393	0.0820	0.0585	0.551				
0.690	0.0107	0.0288	0.257		0.419	0.0770	0.0575	0.561				
0.746	-0.0011	0.0223	-0.036		0.444	0.0723	0.0565	0.568				
0.789	-0.0105	0.0171	-0.487		0.471	0.0662	0.0548	0.569				
0.831	-0.0195	0.0117	-1.378		0.495	0.0607	0.0529	0.569				
					0.523	0.0538	0.0501	0.562				
Run: kt0474								0.527	0.0588	0.0527	0.588	
Avg RPM: 4003								0.549	0.0536	0.0508	0.580	
J	C_T		C_P	η					0.568	0.0490	0.0488	0.571
0.131	0.1049	0.0589	0.234						0.595	0.0424	0.0458	0.550
0.164	0.1035	0.0591	0.287						0.611	0.0388	0.0442	0.536
0.198	0.1014	0.0592	0.340						0.639	0.0319	0.0409	0.499
0.231	0.1003	0.0591	0.391						0.656	0.0280	0.0389	0.472
0.265	0.0964	0.0594	0.430						0.681	0.0223	0.0361	0.422
0.296	0.0923	0.0594	0.460						0.704	0.0175	0.0336	0.366
0.331	0.0868	0.0590	0.487						0.724	0.0130	0.0314	0.301
0.365	0.0804	0.0580	0.506						0.745	0.0083	0.0288	0.214
0.396	0.0746	0.0567	0.521						0.767	0.0035	0.0261	0.102
0.431	0.0669	0.0546	0.528						0.790	-0.0018	0.0229	-0.063
0.465	0.0600	0.0524	0.533						0.811	-0.0065	0.0200	-0.264
0.496	0.0533	0.0498	0.531						0.833	-0.0114	0.0170	-0.558
0.525	0.0471	0.0473	0.523						0.853	-0.0158	0.0140	-0.963
0.556	0.0407	0.0445	0.509						0.877	-0.0213	0.0105	-1.784
0.591	0.0337	0.0411	0.484									
0.625	0.0268	0.0377	0.444									
0.654	0.0209	0.0347	0.393									
Run: jb0475												
Avg RPM: 3997												
J	C_T		C_P	η								
0.554	0.0409	0.0442	0.513									
0.590	0.0337	0.0407	0.489									
0.622	0.0272	0.0375	0.452									
0.656	0.0204	0.0341	0.392									
0.687	0.0140	0.0308	0.313									
Run: jb0478												
Avg RPM: 5989												
J	C_T		C_P	η								
0.090	0.1155	0.0561	0.185									
0.107	0.1147	0.0561	0.218									
0.130	0.1137	0.0568	0.260									

APC				0.689	0.0255	0.0411	0.428	Run: pg0622			
Sport Propeller				0.722	0.0189	0.0374	0.364	Avg RPM: 5994			
11×8				0.754	0.0120	0.0338	0.267	J	C_T	C_P	η
Figs. 5.92–5.94				0.793	0.0035	0.0288	0.098	0.087	0.1210	0.0606	0.175
Run: pg0617				0.823	-0.0033	0.0246	-0.111	0.108	0.1199	0.0611	0.213
Avg RPM: 3013				0.856	-0.0103	0.0201	-0.436	0.129	0.1184	0.0615	0.249
J				0.891	-0.0182	0.0147	-1.110	0.153	0.1175	0.0623	0.289
C_T				0.924	-0.0259	0.0096	-2.495	0.176	0.1154	0.0626	0.325
C_P				0.947	-0.0311	0.0060	-4.936	0.195	0.1142	0.0631	0.352
η				0.948	-0.0309	0.0060	-4.871	0.223	0.1117	0.0638	0.391
Run: pg0620				Run: pg0620				0.242	0.1103	0.0642	0.416
Avg RPM: 4998				Avg RPM: 4998				0.264	0.1081	0.0647	0.442
J				J				0.286	0.1061	0.0651	0.466
C_T				C_T				0.309	0.1031	0.0652	0.490
C_P				C_P				0.332	0.1008	0.0656	0.510
η				η				0.353	0.0983	0.0656	0.529
Run: pg0623				Run: pg0623				0.374	0.0957	0.0658	0.544
Avg RPM: 6011				Avg RPM: 6011				0.394	0.0931	0.0658	0.558
J				J				0.416	0.0900	0.0657	0.570
C_T				C_T				0.441	0.0865	0.0654	0.583
C_P				C_P				Run: pg0623			
η				η				0.371	0.0960	0.0658	0.541
Run: pg0618				Run: pg0618				0.394	0.0929	0.0657	0.557
Avg RPM: 3996				Avg RPM: 3996				0.415	0.0899	0.0655	0.570
J				J				0.438	0.0867	0.0653	0.582
C_T				C_T				Run: pg0623			
C_P				C_P				0.445	0.0838	0.0650	0.574
η				η				0.469	0.0791	0.0641	0.579
Run: pg0619				Run: pg0619				0.497	0.0735	0.0626	0.583
Avg RPM: 3997				Avg RPM: 3997				0.523	0.0680	0.0610	0.583
J				Run: pg0621				Run: pg0621			
C_T				Avg RPM: 5001				0.569	0.0625	0.0595	0.598
C_P				J				0.445	0.0833	0.0647	0.573
η				C_T				0.589	0.0581	0.0578	0.592
Run: pg0621				Run: pg0621				0.615	0.0519	0.0551	0.580
Avg RPM: 5001				C_P				0.634	0.0475	0.0530	0.568
J				η				0.659	0.0413	0.0498	0.545
C_T				Run: pg0621				0.676	0.0374	0.0479	0.528
C_P				Avg RPM: 5001				0.702	0.0315	0.0449	0.492
η				J				0.720	0.0277	0.0432	0.461
Run: pg0622				C_T				0.745	0.0213	0.0397	0.399
Avg RPM: 5994				C_P				0.763	0.0173	0.0375	0.351
J				η				0.790	0.0109	0.0336	0.256
C_T				Run: pg0622				0.807	0.0072	0.0314	0.184
C_P				Avg RPM: 5994				0.832	0.0012	0.0278	0.037
η				J				0.850	-0.0027	0.0252	-0.092
Run: pg0623				C_T				0.878	-0.0091	0.0209	-0.383
Avg RPM: 6011				C_P				Run: pg0623			
η				η				0.818	0.0010	0.0274	0.029
Run: pg0624				Run: pg0624				0.843	-0.0045	0.0239	-0.158
Avg RPM: 6011				Avg RPM: 6011				0.869	-0.0102	0.0201	-0.442
J				J				0.896	-0.0166	0.0160	-0.928
C_T				C_T				0.922	-0.0226	0.0120	-1.736
C_P				C_P				0.948	-0.0286	0.0077	-3.507

APC				0.687	0.0447	0.0581	0.528	0.919	-0.0050	0.0275	-0.166
Sport Propeller				0.721	0.0363	0.0534	0.490	0.948	-0.0118	0.0226	-0.496
11×9				0.753	0.0290	0.0489	0.447	0.975	-0.0177	0.0184	-0.936
Figs. 5.98–5.100				0.785	0.0219	0.0444	0.387	0.999	-0.0233	0.0143	-1.631
				0.818	0.0144	0.0394	0.298	1.026	-0.0299	0.0094	-3.254
Run: pg0625				0.853	0.0069	0.0344	0.170	Run: pg0630			
Avg RPM: 3011				0.893	-0.0022	0.0290	-0.067	Avg RPM: 5793			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.921	-0.0086	0.0246	-0.320	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.176	0.1061	0.0745	0.251	0.955	-0.0165	0.0188	-0.838	0.093	0.1218	0.0695	0.162
0.216	0.1050	0.0743	0.305	0.986	-0.0237	0.0134	-1.738	0.112	0.1211	0.0697	0.195
0.259	0.1029	0.0745	0.358	1.021	-0.0318	0.0077	-4.195	0.136	0.1205	0.0703	0.233
0.309	0.1004	0.0749	0.413	Run: pg0628				0.158	0.1195	0.0708	0.267
0.354	0.0969	0.0749	0.458	Avg RPM: 4993				0.180	0.1183	0.0713	0.298
0.398	0.0930	0.0750	0.493	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.205	0.1171	0.0718	0.334
0.441	0.0884	0.0743	0.524	0.103	0.1167	0.0724	0.166	0.228	0.1177	0.0718	0.374
0.479	0.0834	0.0735	0.544	0.132	0.1164	0.0720	0.214	0.251	0.1159	0.0722	0.403
0.518	0.0770	0.0719	0.554	0.162	0.1159	0.0726	0.259	0.274	0.1146	0.0731	0.429
0.576	0.0639	0.0668	0.552	0.184	0.1149	0.0727	0.291	0.297	0.1127	0.0734	0.457
0.611	0.0570	0.0639	0.544	0.211	0.1138	0.0729	0.329	0.322	0.1111	0.0741	0.483
0.654	0.0461	0.0583	0.517	0.236	0.1132	0.0733	0.364	0.344	0.1086	0.0743	0.503
0.687	0.0391	0.0547	0.492	0.265	0.1119	0.0737	0.403	0.363	0.1063	0.0744	0.519
0.743	0.0273	0.0477	0.425	0.291	0.1104	0.0739	0.434	0.383	0.1046	0.0748	0.536
0.787	0.0178	0.0416	0.337	0.317	0.1085	0.0741	0.464	0.407	0.1019	0.0749	0.553
0.831	0.0081	0.0351	0.193	0.346	0.1065	0.0746	0.494	0.433	0.0991	0.0751	0.571
0.881	-0.0034	0.0268	-0.111	0.372	0.1047	0.0749	0.520	0.452	0.0968	0.0753	0.581
Run: pg0626				0.398	0.1023	0.0751	0.542	Run: pg0631			
Avg RPM: 4003				0.425	0.0995	0.0754	0.561	Avg RPM: 5795			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.447	0.0967	0.0753	0.574	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.133	0.1116	0.0736	0.202	0.472	0.0934	0.0753	0.586	0.386	0.1040	0.0746	0.539
0.165	0.1109	0.0738	0.248	0.499	0.0898	0.0750	0.598	0.410	0.1016	0.0749	0.556
0.199	0.1097	0.0740	0.295	0.525	0.0862	0.0747	0.605	0.436	0.0984	0.0749	0.572
0.231	0.1079	0.0742	0.336	Run: pg0629				0.455	0.0964	0.0750	0.584
0.265	0.1055	0.0744	0.376	Avg RPM: 5006				0.478	0.0933	0.0748	0.596
0.298	0.1038	0.0747	0.415	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.500	0.0906	0.0748	0.606
0.329	0.1021	0.0752	0.447	0.449	0.0962	0.0752	0.573	0.522	0.0874	0.0744	0.613
0.362	0.1001	0.0753	0.481	0.473	0.0930	0.0750	0.587	0.545	0.0837	0.0737	0.618
0.394	0.0977	0.0754	0.510	0.499	0.0898	0.0750	0.598	0.570	0.0798	0.0731	0.623
0.427	0.0952	0.0753	0.540	0.529	0.0851	0.0743	0.607	0.587	0.0769	0.0724	0.624
0.460	0.0923	0.0753	0.564	0.555	0.0808	0.0733	0.611	0.613	0.0718	0.0709	0.621
0.492	0.0886	0.0750	0.580	0.579	0.0763	0.0724	0.611	0.633	0.0680	0.0698	0.617
0.523	0.0834	0.0741	0.588	0.604	0.0712	0.0706	0.609	0.658	0.0626	0.0678	0.608
0.552	0.0781	0.0729	0.592	0.623	0.0670	0.0693	0.603	0.678	0.0580	0.0658	0.597
0.588	0.0697	0.0699	0.587	0.655	0.0595	0.0662	0.589	0.705	0.0511	0.0624	0.577
0.616	0.0632	0.0674	0.578	0.683	0.0527	0.0630	0.572	0.723	0.0459	0.0599	0.554
0.651	0.0532	0.0623	0.556	0.712	0.0444	0.0589	0.537	0.749	0.0389	0.0560	0.520
Run: pg0627				0.732	0.0396	0.0560	0.517	0.767	0.0345	0.0534	0.496
Avg RPM: 4007				0.758	0.0330	0.0523	0.479	0.795	0.0272	0.0488	0.442
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.784	0.0264	0.0481	0.431	0.813	0.0226	0.0459	0.401
0.548	0.0789	0.0731	0.592	0.817	0.0180	0.0427	0.344	0.840	0.0162	0.0418	0.324
0.589	0.0679	0.0688	0.581	0.835	0.0138	0.0400	0.289	0.856	0.0123	0.0393	0.269
0.614	0.0630	0.0669	0.578	0.869	0.0064	0.0353	0.157	0.886	0.0056	0.0351	0.142
0.652	0.0536	0.0627	0.558	0.895	0.0006	0.0315	0.018	0.903	0.0016	0.0324	0.045

APC			
Sport Prop			
14×13			
Figs. 5.104–5.106			
Run: jb1049			
Avg RPM: 2003			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.311	0.0964	0.0784	0.382
0.365	0.0962	0.0775	0.454
0.410	0.0933	0.0772	0.495
0.467	0.0871	0.0767	0.530
0.521	0.0804	0.0761	0.551
0.567	0.0728	0.0736	0.561
0.619	0.0642	0.0698	0.569
0.670	0.0550	0.0659	0.560
0.729	0.0438	0.0593	0.538
0.781	0.0331	0.0526	0.491
0.824	0.0237	0.0474	0.413
0.882	0.0111	0.0383	0.255
0.935	-0.0001	0.0305	-0.004
0.986	-0.0110	0.0224	-0.482
1.030	-0.0194	0.0161	-1.243
Run: jb1050			
Avg RPM: 2508			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.247	0.1054	0.0785	0.331
0.286	0.1057	0.0779	0.389
0.331	0.1047	0.0775	0.448
0.374	0.1039	0.0774	0.502
0.415	0.1017	0.0783	0.539
0.457	0.0961	0.0780	0.563
0.494	0.0925	0.0779	0.586
0.541	0.0862	0.0773	0.603
0.577	0.0798	0.0756	0.610
0.618	0.0713	0.0725	0.608
0.654	0.0638	0.0694	0.602
0.700	0.0546	0.0651	0.587
0.735	0.0479	0.0612	0.575
0.784	0.0373	0.0548	0.534
0.831	0.0276	0.0494	0.464
Run: jb1051			
Avg RPM: 2503			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.698	0.0541	0.0648	0.583
0.742	0.0453	0.0598	0.563
0.775	0.0389	0.0559	0.540
0.823	0.0292	0.0505	0.476
0.863	0.0201	0.0444	0.391
0.907	0.0107	0.0381	0.254
0.945	0.0023	0.0322	0.069
0.987	-0.0067	0.0255	-0.260
1.040	-0.0191	0.0156	-1.271
Run: jb1052			
Avg RPM: 2998			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.206	0.1111	0.0776	0.295
0.242	0.1113	0.0767	0.351
0.277	0.1108	0.0769	0.399
0.311	0.1100	0.0769	0.445
0.347	0.1082	0.0772	0.486
0.382	0.1058	0.0778	0.519
0.413	0.1031	0.0782	0.544
0.452	0.1002	0.0785	0.577
0.486	0.0964	0.0784	0.597
0.521	0.0917	0.0783	0.610
0.554	0.0865	0.0774	0.619
0.588	0.0809	0.0762	0.625
0.618	0.0760	0.0749	0.628
0.651	0.0694	0.0725	0.623
0.682	0.0629	0.0698	0.615
Run: jb1053			
Avg RPM: 3003			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.582	0.0817	0.0764	0.622
0.620	0.0749	0.0745	0.624
0.653	0.0689	0.0724	0.621
0.683	0.0625	0.0696	0.614
0.716	0.0553	0.0660	0.600
0.763	0.0452	0.0604	0.571
0.789	0.0396	0.0571	0.548
0.822	0.0327	0.0528	0.509
0.864	0.0230	0.0471	0.422
0.891	0.0176	0.0435	0.360
0.933	0.0078	0.0369	0.198
0.967	0.0002	0.0315	0.005
0.998	-0.0068	0.0256	-0.264
1.035	-0.0159	0.0181	-0.908
Run: jb1054			
Avg RPM: 3504			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.499	0.0961	0.0784	0.612
0.528	0.0925	0.0783	0.624
0.564	0.0874	0.0776	0.635
0.587	0.0835	0.0770	0.637
0.622	0.0775	0.0754	0.640
0.650	0.0725	0.0737	0.640
0.675	0.0676	0.0719	0.635
0.702	0.0625	0.0697	0.629
0.741	0.0546	0.0659	0.613
0.770	0.0486	0.0628	0.596
0.794	0.0430	0.0596	0.573
0.825	0.0362	0.0560	0.533
0.859	0.0285	0.0512	0.478
0.887	0.0222	0.0471	0.418
0.914	0.0160	0.0430	0.340
0.946	0.0083	0.0376	0.209
0.972	0.0025	0.0329	0.073
1.007	-0.0062	0.0259	-0.241
1.032	-0.0122	0.0208	-0.608

APC

Thin Electric

9×4.5

Figs. 5.110–5.112

Run: rd0996

Avg RPM: 4002

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.160	0.0755	0.0424	0.285
0.196	0.0688	0.0411	0.328
0.235	0.0610	0.0390	0.367
0.278	0.0526	0.0365	0.400
0.315	0.0466	0.0347	0.423
0.369	0.0375	0.0320	0.433
0.398	0.0328	0.0303	0.430
0.443	0.0249	0.0275	0.401
0.487	0.0162	0.0240	0.330
0.527	0.0084	0.0207	0.214
0.565	0.0004	0.0172	0.015
0.603	-0.0080	0.0133	-0.361
0.655	-0.0195	0.0082	-1.554

Run: jb0997

Avg RPM: 5008

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.129	0.0852	0.0438	0.251
0.161	0.0801	0.0435	0.296
0.194	0.0744	0.0427	0.338
0.224	0.0685	0.0415	0.370
0.260	0.0611	0.0397	0.400
0.290	0.0549	0.0379	0.420

0.321	0.0484	0.0358	0.434	0.277	0.0671	0.0428	0.435	Run: rd0989
0.355	0.0422	0.0338	0.443	0.302	0.0612	0.0410	0.451	Avg RPM: 5013
0.389	0.0359	0.0316	0.442	0.329	0.0554	0.0395	0.462	<i>J</i>
0.413	0.0316	0.0300	0.435	0.351	0.0502	0.0376	0.469	<i>C_T</i>
0.449	0.0248	0.0274	0.406	0.370	0.0461	0.0365	0.467	<i>C_P</i>
0.482	0.0185	0.0250	0.356	0.395	0.0396	0.0337	0.464	η
0.508	0.0134	0.0228	0.298	0.417	0.0351	0.0321	0.456	0.128
0.547	0.0053	0.0193	0.150	0.439	0.0304	0.0302	0.443	0.160
0.577	-0.0009	0.0165	-0.033	0.461	0.0262	0.0285	0.423	0.193
0.609	-0.0079	0.0132	-0.362					0.227
0.641	-0.0151	0.0098	-0.989					0.258
Run: jb0998								0.291
Avg RPM: 6018								0.323
	<i>J</i>	<i>C_T</i>	<i>C_P</i>					0.351
0.108	0.0906	0.0440	0.222	0.394	0.0395	0.0337	0.461	0.382
0.133	0.0878	0.0443	0.264	0.416	0.0349	0.0317	0.458	0.416
0.160	0.0844	0.0445	0.303	0.439	0.0303	0.0302	0.441	0.449
0.189	0.0796	0.0441	0.341	0.463	0.0258	0.0284	0.419	0.481
0.214	0.0757	0.0437	0.370	0.487	0.0206	0.0262	0.382	0.509
0.240	0.0704	0.0427	0.397	0.509	0.0161	0.0244	0.335	0.544
0.271	0.0638	0.0411	0.420	0.534	0.0109	0.0221	0.263	0.576
0.296	0.0580	0.0394	0.436	0.560	0.0053	0.0196	0.153	0.608
0.322	0.0525	0.0377	0.448	0.581	0.0009	0.0176	0.031	0.641
0.348	0.0466	0.0357	0.453	0.607	-0.0047	0.0148	-0.194	
0.376	0.0407	0.0337	0.455	0.629	-0.0095	0.0124	-0.482	
0.400	0.0359	0.0318	0.451	0.654	-0.0154	0.0094	-1.073	
0.425	0.0312	0.0301	0.440	0.673	-0.0198	0.0072	-1.855	
0.454	0.0255	0.0278	0.416					
0.477	0.0212	0.0262	0.386					
0.508	0.0146	0.0234	0.317					
0.530	0.0101	0.0215	0.248					
Run: jb0999								
Avg RPM: 6015								
	<i>J</i>	<i>C_T</i>	<i>C_P</i>					
0.455	0.0251	0.0277	0.412	0.162	0.1004	0.0580	0.280	
0.477	0.0210	0.0260	0.383	0.200	0.0970	0.0583	0.332	
0.507	0.0147	0.0235	0.318	0.238	0.0928	0.0583	0.378	
0.530	0.0101	0.0214	0.249	0.279	0.0881	0.0588	0.418	
0.566	0.0026	0.0182	0.082	0.325	0.0802	0.0582	0.448	
0.587	-0.0018	0.0161	-0.066	0.360	0.0716	0.0560	0.461	
0.620	-0.0091	0.0126	-0.450	0.408	0.0583	0.0508	0.468	
Run: jb1000				0.442	0.0510	0.0478	0.471	
Avg RPM: 6917				0.488	0.0415	0.0439	0.462	
	<i>J</i>	<i>C_T</i>	<i>C_P</i>					
0.091	0.0939	0.0443	0.194	0.516	0.0367	0.0420	0.451	
0.114	0.0918	0.0445	0.235	0.562	0.0278	0.0383	0.409	
0.141	0.0890	0.0448	0.279	0.609	0.0187	0.0341	0.333	
0.163	0.0865	0.0450	0.313	0.646	0.0105	0.0301	0.226	
0.187	0.0835	0.0452	0.345	0.688	0.0014	0.0254	0.037	
0.210	0.0797	0.0449	0.374	0.722	-0.0064	0.0213	-0.218	
0.233	0.0757	0.0445	0.398	0.766	-0.0165	0.0157	-0.804	
0.257	0.0712	0.0437	0.419	0.805	-0.0256	0.0105	-1.963	
Run: rd0991								
Avg RPM: 6038								
	<i>J</i>	<i>C_T</i>	<i>C_P</i>					
0.110	0.1074	0.0579	0.203	0.293	0.0890	0.0589	0.443	
0.136	0.1053	0.0582	0.246	0.318	0.0857	0.0588	0.464	
0.158	0.1035	0.0584	0.279	0.344	0.0821	0.0588	0.481	
0.186	0.1009	0.0586	0.321	0.371	0.0776	0.0583	0.493	
0.215	0.0981	0.0588	0.359	0.397	0.0722	0.0572	0.501	
0.241	0.0953	0.0589	0.390	0.424	0.0652	0.0549	0.503	
0.265	0.0925	0.0589	0.417	0.453	0.0563	0.0513	0.498	
0.297	0.0890	0.0589	0.443	0.477	0.0504	0.0488	0.492	
0.303	0.0437	0.0458	0.480	0.503	0.0437	0.0458	0.480	
0.533	0.0365	0.0424	0.459					

Run: rd0992				Run: kt0822			
Avg RPM: 6015				Avg RPM: 4993			
J	C_T	C_P	η	J	C_T	C_P	η
0.452	0.0572	0.0518	0.500	0.670	0.0078	0.0290	0.180
0.478	0.0497	0.0485	0.490	0.693	0.0026	0.0262	0.069
0.503	0.0434	0.0456	0.478	0.720	-0.0036	0.0228	-0.115
0.530	0.0372	0.0428	0.461	0.741	-0.0084	0.0202	-0.306
0.561	0.0303	0.0395	0.430	0.768	-0.0147	0.0166	-0.679
0.584	0.0252	0.0370	0.398	0.789	-0.0195	0.0137	-1.126
0.613	0.0191	0.0341	0.343	0.815	-0.0259	0.0096	-2.190
0.637	0.0141	0.0317	0.283	0.837	-0.0313	0.0063	-4.161
0.671	0.0065	0.0280	0.156	APC			
0.690	0.0026	0.0262	0.068	Thin Electric			
0.726	-0.0059	0.0215	-0.201	10×5			
0.746	-0.0104	0.0190	-0.407	Figs. 5.122–5.124			
0.775	-0.0171	0.0152	-0.874				
0.800	-0.0229	0.0115	-1.591	Run: pg0820			
0.826	-0.0293	0.0076	-3.205	Avg RPM: 4005			
Run: rd0993							
Avg RPM: 6701				J			
				C_T			
				C_P			
				η			
0.095	0.1091	0.0579	0.180	0.146	0.0837	0.0422	0.290
0.123	0.1071	0.0582	0.225	0.182	0.0789	0.0423	0.339
0.146	0.1057	0.0587	0.263	0.213	0.0732	0.0415	0.375
0.169	0.1034	0.0588	0.297	0.257	0.0628	0.0392	0.412
0.192	0.1012	0.0590	0.329	0.288	0.0556	0.0370	0.434
0.218	0.0985	0.0592	0.363	0.330	0.0478	0.0344	0.457
0.242	0.0963	0.0594	0.392	0.358	0.0430	0.0329	0.468
0.264	0.0938	0.0592	0.419	0.397	0.0367	0.0308	0.474
0.287	0.0896	0.0588	0.438	0.428	0.0317	0.0291	0.466
0.311	0.0877	0.0592	0.461	0.470	0.0246	0.0265	0.436
0.335	0.0844	0.0592	0.477	0.511	0.0171	0.0233	0.375
0.359	0.0807	0.0589	0.492	0.550	0.0092	0.0200	0.253
0.382	0.0770	0.0587	0.502	0.585	0.0019	0.0169	0.067
0.405	0.0729	0.0580	0.510	0.618	-0.0048	0.0138	-0.215
0.429	0.0670	0.0560	0.513	0.650	-0.0115	0.0106	-0.710
0.450	0.0608	0.0537	0.510	0.685	-0.0189	0.0070	-1.840
Run: rd0994				Run: kt0821			
Avg RPM: 6715				Avg RPM: 5000			
				J			
				C_T			
				C_P			
				η			
0.408	0.0715	0.0574	0.507	0.113	0.0885	0.0418	0.240
0.431	0.0659	0.0557	0.511	0.145	0.0860	0.0423	0.295
0.454	0.0593	0.0530	0.508	0.175	0.0830	0.0427	0.340
0.479	0.0522	0.0502	0.499	0.201	0.0797	0.0427	0.374
0.505	0.0452	0.0469	0.487	0.234	0.0745	0.0424	0.410
0.523	0.0408	0.0449	0.475	0.261	0.0690	0.0415	0.434
0.545	0.0358	0.0426	0.458	0.292	0.0615	0.0395	0.454
0.574	0.0291	0.0393	0.425	0.316	0.0562	0.0381	0.467
0.595	0.0243	0.0369	0.392	0.346	0.0489	0.0355	0.476
0.622	0.0183	0.0340	0.335	0.376	0.0430	0.0334	0.484
0.649	0.0124	0.0312	0.258	0.401	0.0387	0.0320	0.485
				0.432	0.0330	0.0299	0.478
				0.466	0.0267	0.0274	0.455
				0.494	0.0214	0.0252	0.420
				0.520	0.0164	0.0230	0.370
				0.549	0.0106	0.0206	0.283
				0.582	0.0039	0.0177	0.127

Run: kt0825		0.327	0.0837	0.0576	0.475	Run: pg0815					
Avg RPM: 6707		0.363	0.0784	0.0573	0.497	Avg RPM: 6020					
	J	C_T	C_P	η			J	C_T	C_P	η	
0.087	0.0934	0.0428	0.189	0.395	0.0719	0.0559	0.508	0.097	0.1067	0.0573	0.181
0.108	0.0919	0.0430	0.231	0.433	0.0630	0.0531	0.514	0.126	0.1047	0.0576	0.230
0.128	0.0903	0.0432	0.268	0.466	0.0558	0.0507	0.513	0.145	0.1036	0.0578	0.260
0.149	0.0886	0.0434	0.304	0.504	0.0455	0.0461	0.498	0.169	0.1019	0.0580	0.296
0.173	0.0865	0.0437	0.343	0.541	0.0374	0.0422	0.479	0.193	0.1001	0.0582	0.331
0.195	0.0844	0.0440	0.375	0.576	0.0304	0.0388	0.451	0.218	0.0977	0.0582	0.366
0.216	0.0822	0.0442	0.402	0.614	0.0231	0.0353	0.402	0.241	0.0958	0.0584	0.395
0.238	0.0797	0.0443	0.427	0.648	0.0164	0.0319	0.332	0.266	0.0932	0.0584	0.424
0.259	0.0770	0.0444	0.449	0.686	0.0089	0.0282	0.216	0.290	0.0909	0.0586	0.451
0.280	0.0736	0.0441	0.467	0.721	0.0012	0.0241	0.036	0.311	0.0887	0.0586	0.471
0.301	0.0697	0.0434	0.483					0.339	0.0855	0.0586	0.494
0.321	0.0652	0.0423	0.494					0.358	0.0832	0.0586	0.509
0.342	0.0602	0.0409	0.503					0.385	0.0800	0.0585	0.526
0.368	0.0531	0.0385	0.507					0.409	0.0760	0.0580	0.536
0.388	0.0481	0.0366	0.510					0.429	0.0725	0.0574	0.542
0.406	0.0440	0.0352	0.508					0.456	0.0673	0.0562	0.546
0.435	0.0371	0.0324	0.498					0.480	0.0618	0.0545	0.544
Run: kt0826		0.261	0.0922	0.0577	0.416	Run: pg0816					
Avg RPM: 6710		0.287	0.0895	0.0577	0.445	Avg RPM: 6015					
	J	C_T	C_P	η			J	C_T	C_P	η	
0.367	0.0531	0.0385	0.506	0.320	0.0861	0.0580	0.476	0.409	0.0763	0.0582	0.536
0.388	0.0482	0.0367	0.509	0.344	0.0833	0.0579	0.495	0.433	0.0718	0.0573	0.543
0.407	0.0436	0.0351	0.506	0.372	0.0795	0.0578	0.512	0.456	0.0673	0.0562	0.546
0.430	0.0381	0.0327	0.501	0.401	0.0749	0.0572	0.525	0.478	0.0625	0.0547	0.546
0.450	0.0341	0.0312	0.491	0.432	0.0684	0.0557	0.530	0.505	0.0557	0.0522	0.538
0.474	0.0292	0.0291	0.475	0.464	0.0611	0.0533	0.532	0.527	0.0498	0.0498	0.528
0.493	0.0254	0.0276	0.455	0.492	0.0543	0.0508	0.526	0.549	0.0444	0.0473	0.515
0.513	0.0219	0.0262	0.429	0.518	0.0477	0.0480	0.515	0.576	0.0370	0.0436	0.488
0.538	0.0167	0.0240	0.374	0.548	0.0397	0.0441	0.493	0.602	0.0308	0.0404	0.459
0.557	0.0126	0.0222	0.318	0.576	0.0331	0.0409	0.467	0.628	0.0247	0.0371	0.417
0.585	0.0069	0.0196	0.205					0.648	0.0204	0.0349	0.378
0.604	0.0029	0.0177	0.099					0.671	0.0154	0.0322	0.320
0.628	-0.0025	0.0150	-0.106					0.698	0.0096	0.0291	0.230
0.641	-0.0053	0.0136	-0.251					0.718	0.0052	0.0267	0.141
0.668	-0.0112	0.0105	-0.715					0.749	-0.0016	0.0230	-0.051
0.692	-0.0166	0.0075	-1.523					0.767	-0.0057	0.0207	-0.210
								0.796	-0.0122	0.0166	-0.586
								0.821	-0.0179	0.0132	-1.117
								0.847	-0.0237	0.0097	-2.070
								0.870	-0.0292	0.0064	-3.957
APC											
Thin Electric											
10×7											
Figs. 5.128–5.130											
Run: pg0812		0.727	0.0012	0.0242	0.038	Run: pg0817					
Avg RPM: 4007		0.753	-0.0046	0.0210	-0.165	Avg RPM: 6531					
	J	C_T	C_P	η			J	C_T	C_P	η	
0.144	0.1007	0.0571	0.254	0.786	-0.0116	0.0169	-0.537	0.084	0.1084	0.0575	0.158
0.178	0.0981	0.0571	0.306	0.811	-0.0172	0.0136	-1.026	0.111	0.1068	0.0579	0.205
0.217	0.0950	0.0572	0.360	0.842	-0.0242	0.0096	-2.134	0.132	0.1054	0.0581	0.239
0.255	0.0916	0.0574	0.407					0.158	0.1035	0.0583	0.280
0.290	0.0879	0.0575	0.444					0.176	0.1021	0.0585	0.308
								0.199	0.1003	0.0587	0.341

0.224	0.0981	0.0588	0.373	0.485	0.0126	0.0171	0.357	0.603	-0.0066	0.0092	-0.431
0.245	0.0961	0.0589	0.400	0.515	0.0073	0.0150	0.250	0.629	-0.0119	0.0069	-1.088
0.265	0.0942	0.0589	0.424	0.567	-0.0027	0.0111	-0.138				
0.290	0.0916	0.0590	0.451	0.611	-0.0111	0.0078	-0.872				
0.312	0.0893	0.0590	0.472								
0.335	0.0867	0.0590	0.492								
0.353	0.0846	0.0590	0.506								
0.374	0.0820	0.0590	0.521								
0.397	0.0789	0.0588	0.533								
0.419	0.0757	0.0585	0.542								
0.440	0.0722	0.0579	0.549								
Run:	pg0818										
Avg RPM:	6519										
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>							
0.376	0.0816	0.0589	0.521	0.333	0.0383	0.0260	0.491	0.264	0.0633	0.0342	0.487
0.398	0.0788	0.0587	0.534	0.366	0.0332	0.0244	0.498	0.284	0.0584	0.0331	0.501
0.419	0.0756	0.0584	0.543	0.398	0.0283	0.0229	0.492	0.304	0.0536	0.0318	0.512
0.439	0.0722	0.0578	0.548	0.432	0.0230	0.0211	0.471	0.328	0.0480	0.0301	0.522
0.466	0.0665	0.0563	0.550	0.464	0.0177	0.0192	0.427	0.349	0.0437	0.0288	0.528
0.487	0.0622	0.0551	0.549	0.497	0.0118	0.0170	0.345	0.372	0.0386	0.0271	0.530
0.508	0.0579	0.0537	0.547	0.529	0.0059	0.0147	0.213	0.395	0.0344	0.0257	0.529
0.531	0.0512	0.0509	0.535	0.558	0.0007	0.0125	0.029	0.419	0.0300	0.0240	0.523
0.549	0.0468	0.0490	0.525	0.592	-0.0057	0.0099	-0.340	0.439	0.0264	0.0227	0.508
0.575	0.0397	0.0454	0.503	0.621	-0.0119	0.0074	-1.004				
0.596	0.0346	0.0430	0.480								
0.626	0.0268	0.0388	0.433								
0.645	0.0228	0.0367	0.401								
0.670	0.0169	0.0335	0.339								
0.688	0.0129	0.0314	0.284								
0.705	0.0092	0.0293	0.222								
0.735	0.0027	0.0257	0.076								
0.753	-0.0015	0.0233	-0.050								
0.779	-0.0075	0.0197	-0.298								
0.798	-0.0116	0.0172	-0.540								
0.822	-0.0172	0.0137	-1.025								
0.845	-0.0225	0.0104	-1.829								
0.870	-0.0285	0.0069	-3.606								

APC**Thin Electric****11×5.5**Figs. 5.134–5.136

Run: kt0516

Avg RPM: 3010

<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>
0.176	0.0590	0.0306	0.340
0.217	0.0526	0.0290	0.394
0.259	0.0460	0.0273	0.438
0.308	0.0396	0.0257	0.474
0.356	0.0330	0.0240	0.489
0.394	0.0276	0.0225	0.485
0.443	0.0201	0.0199	0.445

0.485	0.0126	0.0171	0.357	0.603	-0.0066	0.0092	-0.431
0.515	0.0073	0.0150	0.250	0.629	-0.0119	0.0069	-1.088
Run: kt0471							
Avg RPM: 6002							
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>			
	0.088	0.0840	0.0341	0.217			
	0.111	0.0825	0.0344	0.266			
	0.133	0.0750	0.0339	0.294			
	0.162	0.0706	0.0337	0.338			
	0.199	0.0629	0.0325	0.384			
	0.232	0.0555	0.0308	0.418			
	0.199	0.0744	0.0354	0.419			
	0.220	0.0716	0.0354	0.445			
	0.242	0.0676	0.0350	0.468			
	0.264	0.0633	0.0342	0.487			
	0.284	0.0584	0.0331	0.501			
	0.304	0.0536	0.0318	0.512			
	0.328	0.0480	0.0301	0.522			
	0.349	0.0437	0.0288	0.528			
	0.372	0.0386	0.0271	0.530			
	0.395	0.0344	0.0257	0.529			
	0.419	0.0300	0.0240	0.523			
	0.439	0.0264	0.0227	0.508			
Run: kt0472							
Avg RPM: 6000							
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>			
	0.369	0.0387	0.0270	0.530			
	0.392	0.0346	0.0256	0.530			
	0.416	0.0302	0.0240	0.523			
	0.436	0.0267	0.0228	0.511			
	0.463	0.0218	0.0209	0.481			
	0.481	0.0186	0.0198	0.452			
	0.507	0.0140	0.0181	0.393			
	0.528	0.0099	0.0164	0.318			
	0.549	0.0058	0.0147	0.218			
	0.571	0.0017	0.0128	0.075			
	0.593	-0.0028	0.0108	-0.151			
	0.615	-0.0073	0.0088	-0.510			
	0.638	-0.0119	0.0066	-1.156			

APC**Thin Electric****11×7**Figs. 5.140–5.142

Run: kt0535

Avg RPM: 3003

<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>
0.173	0.0919	0.0463	0.344
0.216	0.0889	0.0471	0.408
0.261	0.0839	0.0474	0.462
0.307	0.0768	0.0473	0.499
0.348	0.0666	0.0449	0.516
0.399	0.0532	0.0401	0.531

0.438	0.0459	0.0371	0.542	0.340	0.0794	0.0483	0.558	0.460	0.0613	0.0462	0.611	
0.486	0.0375	0.0338	0.539	0.367	0.0755	0.0481	0.576	0.479	0.0563	0.0444	0.607	
0.531	0.0300	0.0309	0.517	0.393	0.0713	0.0477	0.587	0.501	0.0492	0.0414	0.596	
0.566	0.0245	0.0287	0.483	0.420	0.0649	0.0461	0.591	0.524	0.0425	0.0384	0.581	
0.623	0.0140	0.0239	0.364	0.448	0.0570	0.0433	0.589	0.544	0.0377	0.0362	0.567	
0.665	0.0054	0.0196	0.183	0.477	0.0486	0.0399	0.581	0.566	0.0326	0.0337	0.548	
0.706	-0.0030	0.0156	-0.135	0.501	0.0423	0.0371	0.570	0.590	0.0276	0.0314	0.518	
0.743	-0.0101	0.0121	-0.619	0.524	0.0374	0.0349	0.560	0.609	0.0238	0.0295	0.490	
0.787	-0.0193	0.0072	-2.106	Run: kt0539				0.638	0.0174	0.0265	0.420	
Run: kt0536				Avg RPM: 4997				0.656	0.0140	0.0249	0.370	
Avg RPM: 3998				J	C_T	C_P	η	0.679	0.0091	0.0224	0.275	
	J	C_T	C_P	η	0.442	0.0580	0.0438	0.587	0.701	0.0045	0.0201	0.157
0.132	0.0970	0.0463	0.277		0.474	0.0492	0.0402	0.580	0.724	0.0001	0.0178	0.003
0.166	0.0945	0.0466	0.336		0.498	0.0425	0.0372	0.569	0.746	-0.0049	0.0150	-0.242
0.197	0.0921	0.0470	0.387		0.524	0.0369	0.0347	0.556	0.768	-0.0098	0.0121	-0.621
0.230	0.0889	0.0471	0.435		0.550	0.0317	0.0325	0.538	0.789	-0.0142	0.0094	-1.194
0.263	0.0861	0.0476	0.476		0.575	0.0269	0.0302	0.511	0.813	-0.0198	0.0062	-2.603
0.296	0.0824	0.0477	0.511		0.602	0.0216	0.0277	0.469				
0.329	0.0779	0.0477	0.538		0.628	0.0164	0.0253	0.408				
0.360	0.0725	0.0471	0.554		0.655	0.0111	0.0228	0.319				
0.394	0.0639	0.0448	0.562		0.681	0.0057	0.0202	0.191				
0.426	0.0546	0.0415	0.560		0.712	-0.0006	0.0170	-0.027				
0.460	0.0460	0.0379	0.559		0.739	-0.0059	0.0142	-0.308				
0.492	0.0396	0.0352	0.554		0.760	-0.0102	0.0117	-0.663				
0.524	0.0335	0.0326	0.539		0.786	-0.0158	0.0085	-1.465				
0.559	0.0273	0.0299	0.510		Run: kt0540							
0.590	0.0217	0.0274	0.466		Avg RPM: 5988							
0.623	0.0154	0.0245	0.391		J	C_T	C_P	η				
0.657	0.0084	0.0212	0.262		0.093	0.1031	0.0470	0.203				
Run: kt0537					0.110	0.1020	0.0472	0.237				
Avg RPM: 3995					0.131	0.1009	0.0477	0.277				
	J	C_T	C_P	η	0.152	0.0994	0.0480	0.315				
0.556	0.0275	0.0299	0.510		0.177	0.0977	0.0484	0.358				
0.589	0.0215	0.0273	0.464		0.198	0.0959	0.0486	0.391				
0.622	0.0155	0.0246	0.393		0.220	0.0943	0.0489	0.424				
0.657	0.0087	0.0213	0.267		0.243	0.0920	0.0490	0.456				
0.688	0.0021	0.0182	0.081		0.266	0.0899	0.0492	0.486				
0.723	-0.0048	0.0148	-0.235		0.287	0.0877	0.0493	0.511				
0.762	-0.0126	0.0105	-0.917		0.309	0.0850	0.0492	0.534				
0.790	-0.0187	0.0072	-2.063		0.329	0.0829	0.0492	0.554				
Run: kt0538					0.350	0.0804	0.0492	0.571				
Avg RPM: 4997					0.373	0.0776	0.0492	0.587				
	J	C_T	C_P	η	0.394	0.0746	0.0491	0.599				
0.103	0.1006	0.0465	0.223		0.415	0.0713	0.0487	0.608				
0.138	0.0983	0.0469	0.289		0.436	0.0674	0.0480	0.613				
0.160	0.0968	0.0471	0.329		Run: kt0541							
0.185	0.0948	0.0474	0.371		Avg RPM: 6003							
0.212	0.0927	0.0477	0.412		J	C_T	C_P	η				
0.237	0.0908	0.0480	0.448		0.371	0.0776	0.0492	0.585				
0.265	0.0877	0.0480	0.484		0.396	0.0742	0.0491	0.599				
0.291	0.0850	0.0482	0.513		0.414	0.0715	0.0488	0.606				
0.318	0.0820	0.0482	0.541		0.436	0.0673	0.0480	0.611				

0.299	0.0878	0.0521	0.503	0.551	0.0474	0.0440	0.594	0.750	0.0048	0.0231	0.155
0.331	0.0839	0.0520	0.534	0.576	0.0405	0.0408	0.573	0.764	0.0017	0.0213	0.061
0.361	0.0809	0.0521	0.560	0.601	0.0343	0.0377	0.546	0.790	-0.0042	0.0179	-0.185
0.393	0.0764	0.0517	0.581	0.627	0.0281	0.0346	0.510	0.812	-0.0089	0.0152	-0.475
0.427	0.0706	0.0509	0.592	0.655	0.0220	0.0315	0.458	0.832	-0.0132	0.0126	-0.875
0.457	0.0644	0.0493	0.596	0.682	0.0162	0.0284	0.388				
0.492	0.0560	0.0466	0.592	0.713	0.0095	0.0251	0.270				
0.531	0.0455	0.0421	0.575	0.739	0.0042	0.0223	0.138				
0.562	0.0386	0.0388	0.558	0.765	-0.0014	0.0192	-0.057				
0.590	0.0321	0.0357	0.531	0.789	-0.0067	0.0162	-0.328				
0.622	0.0256	0.0325	0.491	0.817	-0.0125	0.0130	-0.784				
0.655	0.0191	0.0292	0.427	0.844	-0.0181	0.0098	-1.557				

Run: pg0521

Avg RPM: 3997

J	C_T	C_P	η
0.558	0.0392	0.0393	0.556
0.589	0.0318	0.0356	0.527
0.623	0.0252	0.0323	0.485
0.655	0.0184	0.0290	0.417
0.688	0.0120	0.0259	0.320
0.722	0.0052	0.0225	0.168
0.755	-0.0018	0.0187	-0.072
0.793	-0.0099	0.0142	-0.550
0.825	-0.0165	0.0107	-1.277
0.856	-0.0232	0.0070	-2.841

Run: pg0522

Avg RPM: 5013

J	C_T	C_P	η
0.107	0.1043	0.0519	0.215
0.130	0.1038	0.0523	0.258
0.157	0.1018	0.0524	0.305
0.184	0.1001	0.0527	0.349
0.211	0.0984	0.0531	0.390
0.237	0.0958	0.0530	0.429
0.262	0.0938	0.0531	0.463
0.292	0.0908	0.0532	0.498
0.317	0.0876	0.0530	0.524
0.344	0.0853	0.0533	0.550
0.365	0.0821	0.0528	0.568
0.392	0.0791	0.0526	0.589
0.422	0.0750	0.0525	0.603
0.447	0.0716	0.0520	0.614
0.469	0.0677	0.0513	0.619
0.497	0.0614	0.0495	0.617
0.523	0.0551	0.0472	0.611

Run: pg0523

Avg RPM: 4999

J	C_T	C_P	η
0.443	0.0716	0.0520	0.610
0.470	0.0664	0.0506	0.616
0.500	0.0605	0.0493	0.614
0.525	0.0544	0.0470	0.607

Run: pg0524

Avg RPM: 6000

J	C_T	C_P	η
0.091	0.1086	0.0529	0.187
0.110	0.1073	0.0530	0.223
0.132	0.1060	0.0531	0.264
0.152	0.1047	0.0532	0.300
0.173	0.1034	0.0536	0.334
0.197	0.1014	0.0536	0.372
0.219	0.0998	0.0539	0.405
0.244	0.0975	0.0541	0.440
0.264	0.0963	0.0544	0.467
0.284	0.0938	0.0542	0.492
0.309	0.0915	0.0544	0.520
0.327	0.0889	0.0539	0.539
0.350	0.0867	0.0541	0.560
0.373	0.0839	0.0539	0.581
0.397	0.0809	0.0537	0.598
0.414	0.0787	0.0536	0.608
0.435	0.0750	0.0529	0.616

Run: pg0525

Avg RPM: 5997

J	C_T	C_P	η
0.373	0.0833	0.0538	0.578
0.394	0.0809	0.0537	0.593
0.416	0.0780	0.0534	0.607
0.437	0.0753	0.0532	0.618
0.458	0.0719	0.0527	0.626
0.480	0.0684	0.0521	0.631
0.501	0.0650	0.0514	0.633
0.523	0.0604	0.0501	0.631
0.546	0.0558	0.0486	0.627
0.571	0.0499	0.0464	0.615
0.593	0.0437	0.0435	0.595
0.616	0.0368	0.0400	0.567
0.637	0.0317	0.0375	0.538
0.659	0.0258	0.0344	0.494
0.682	0.0202	0.0315	0.438
0.700	0.0164	0.0294	0.389
0.724	0.0108	0.0264	0.296

APC

Thin Electric

11×8.5

Figs. 5.152–5.154

Run: kt0514

Avg RPM: 3005

J	C_T	C_P	η
0.176	0.0979	0.0559	0.308
0.216	0.0956	0.0558	0.369
0.265	0.0919	0.0561	0.434
0.310	0.0875	0.0560	0.485
0.355	0.0830	0.0560	0.526
0.398	0.0777	0.0558	0.555
0.435	0.0716	0.0549	0.567
0.473	0.0626	0.0522	0.568
0.537	0.0463	0.0451	0.552
0.564	0.0407	0.0423	0.542
0.611	0.0312	0.0377	0.507
0.664	0.0219	0.0331	0.439
0.691	0.0172	0.0308	0.385
0.737	0.0084	0.0260	0.238
0.786	-0.0017	0.0203	-0.064
0.833	-0.0110	0.0150	-0.613
0.874	-0.0192	0.0101	-1.654

Run: kt0515

Avg RPM: 2999

J	C_T	C_P	η
0.734	0.0085	0.0258	0.242
0.788	-0.0021	0.0199	-0.081
0.833	-0.0114	0.0144	-0.657
0.874	-0.0196	0.0096	-1.789
0.131	0.1003	0.0569	0.231
0.162	0.1004	0.0564	0.288
0.195	0.0984	0.0564	0.340
0.229	0.0960	0.0564	0.390
0.265	0.0930	0.0564	0.437
0.296	0.0902	0.0565	0.473
0.331	0.0868	0.0565	0.508
0.364	0.0834	0.0564	0.538
0.396	0.0798	0.0563	0.561
0.427	0.0755	0.0558	0.578
0.461	0.0705	0.0553	0.587
0.496	0.0641	0.0541	0.588

0.530	0.0552	0.0508	0.576	0.706	0.0179	0.0328	0.386	0.834	-0.0059	0.0196	-0.252
0.559	0.0472	0.0471	0.561	0.739	0.0110	0.0289	0.281	0.855	-0.0107	0.0167	-0.548
0.590	0.0394	0.0433	0.537	0.764	0.0059	0.0260	0.173	0.875	-0.0150	0.0139	-0.939
0.624	0.0320	0.0395	0.505	0.790	0.0004	0.0229	0.015				
0.657	0.0248	0.0357	0.457	0.817	-0.0053	0.0194	-0.225				
Run: pg0454				0.845	-0.0109	0.0160	-0.575				
Avg RPM: 3998				0.869	-0.0160	0.0130	-1.067				
$J \quad C_T \quad C_P \quad \eta$				0.896	-0.0220	0.0093	-2.134				
Run: pg0457				Run: pg0457				Run: pg0457			
Avg RPM: 5999				$J \quad C_T \quad C_P \quad \eta$				Avg RPM: 5999			
$J \quad C_T \quad C_P \quad \eta$				0.086	0.1053	0.0585	0.155	$J \quad C_T \quad C_P \quad \eta$			
0.559	0.0469	0.0470	0.558	0.109	0.1059	0.0577	0.200	0.175	0.0971	0.0770	0.220
0.589	0.0393	0.0432	0.536	0.134	0.1065	0.0574	0.249	0.217	0.0983	0.0744	0.287
0.622	0.0317	0.0393	0.503	0.153	0.1051	0.0574	0.281	0.263	0.1013	0.0714	0.374
0.655	0.0253	0.0358	0.462	0.175	0.1040	0.0578	0.315	0.304	0.1000	0.0710	0.428
0.687	0.0185	0.0322	0.394	0.198	0.1024	0.0579	0.349	0.349	0.0974	0.0707	0.481
0.722	0.0118	0.0286	0.298	0.220	0.1010	0.0582	0.381	0.397	0.0937	0.0704	0.528
0.753	0.0054	0.0251	0.161	0.242	0.0991	0.0583	0.412	0.440	0.0894	0.0702	0.560
0.784	-0.0007	0.0217	-0.024	0.264	0.0970	0.0582	0.440	0.479	0.0849	0.0699	0.582
0.818	-0.0076	0.0177	-0.350	0.288	0.0953	0.0586	0.469	0.520	0.0800	0.0698	0.596
0.859	-0.0159	0.0130	-1.050	0.307	0.0937	0.0587	0.490	0.569	0.0715	0.0683	0.595
0.889	-0.0226	0.0090	-2.233	0.329	0.0913	0.0586	0.512	0.612	0.0592	0.0634	0.572
Run: pg0455				0.348	0.0896	0.0589	0.530				
Avg RPM: 5012				0.374	0.0865	0.0586	0.553				
$J \quad C_T \quad C_P \quad \eta$				0.396	0.0841	0.0585	0.570				
0.110	0.1035	0.0572	0.200	0.413	0.0816	0.0580	0.581				
0.134	0.1039	0.0565	0.246	0.435	0.0791	0.0579	0.593				
0.154	0.1027	0.0566	0.280	Run: pg0459				Run: pg0459			
0.182	0.1014	0.0569	0.324	Avg RPM: 5999				Avg RPM: 5999			
0.209	0.0993	0.0568	0.365	$J \quad C_T \quad C_P \quad \eta$				$J \quad C_T \quad C_P \quad \eta$			
0.238	0.0977	0.0572	0.406	0.318	0.0903	0.0573	0.439	0.371	0.0865	0.0584	0.549
0.264	0.0953	0.0573	0.439	0.344	0.0877	0.0573	0.526	0.392	0.0842	0.0583	0.566
0.290	0.0930	0.0573	0.470	0.370	0.0847	0.0572	0.548	0.415	0.0812	0.0580	0.581
$J \quad C_T \quad C_P \quad \eta$				0.395	0.0818	0.0569	0.568	0.438	0.0785	0.0578	0.595
0.318	0.0903	0.0574	0.500	0.417	0.0792	0.0569	0.582	0.459	0.0757	0.0575	0.605
0.344	0.0877	0.0573	0.526	0.446	0.0753	0.0564	0.595	0.481	0.0725	0.0570	0.612
0.370	0.0847	0.0572	0.548	0.470	0.0716	0.0558	0.603	0.502	0.0694	0.0565	0.616
0.395	0.0818	0.0569	0.568	0.497	0.0678	0.0554	0.608	0.522	0.0661	0.0559	0.617
0.417	0.0792	0.0569	0.582	0.522	0.0632	0.0544	0.606	0.546	0.0621	0.0551	0.616
0.446	0.0753	0.0564	0.595	0.546	0.0577	0.0539	0.611	0.570	0.0577	0.0539	0.611
0.470	0.0715	0.0559	0.601	0.592	0.0529	0.0521	0.602	0.615	0.0474	0.0498	0.586
0.496	0.0675	0.0553	0.605	0.637	0.0410	0.0466	0.561	0.637	0.0410	0.0466	0.561
0.525	0.0626	0.0543	0.605	0.659	0.0350	0.0434	0.531	0.681	0.0289	0.0399	0.492
0.549	0.0576	0.0527	0.600	0.702	0.0234	0.0369	0.445	0.725	0.0182	0.0340	0.388
0.576	0.0506	0.0499	0.584	0.745	0.0137	0.0314	0.324	0.771	0.0080	0.0280	0.220
0.603	0.0431	0.0463	0.561	0.788	0.0039	0.0255	0.121	0.811	-0.0012	0.0225	-0.043
0.630	0.0361	0.0428	0.531								
0.654	0.0300	0.0395	0.496								
0.682	0.0236	0.0360	0.446								

0.456	0.0895	0.0706	0.579	0.525	0.0839	0.0716	0.615	0.594	0.0756	0.0711	0.632	
0.491	0.0854	0.0703	0.596	0.551	0.0802	0.0711	0.622	0.615	0.0721	0.0704	0.630	
0.523	0.0821	0.0704	0.610	0.577	0.0768	0.0706	0.627	0.643	0.0674	0.0693	0.625	
0.555	0.0777	0.0698	0.617	0.601	0.0729	0.0700	0.626	0.669	0.0622	0.0676	0.615	
0.584	0.0726	0.0689	0.616	0.626	0.0690	0.0693	0.623	0.695	0.0552	0.0645	0.595	
0.622	0.0648	0.0668	0.604	0.656	0.0622	0.0668	0.610	0.719	0.0483	0.0609	0.571	
0.656	0.0559	0.0628	0.584	0.683	0.0556	0.0640	0.593	0.742	0.0420	0.0572	0.545	
Run: kt0513				0.707	0.0486	0.0602	0.570	0.768	0.0350	0.0531	0.506	
Avg RPM: 3996				0.734	0.0408	0.0558	0.537	0.787	0.0301	0.0499	0.476	
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>	0.754	0.0354	0.0525	0.509	0.815	0.0231	0.0453	0.415
0.557	0.0765	0.0692	0.615	0.792	0.0262	0.0467	0.444	0.836	0.0181	0.0421	0.360	
0.591	0.0711	0.0684	0.614	0.817	0.0206	0.0432	0.390	0.861	0.0124	0.0383	0.278	
0.622	0.0648	0.0666	0.605	0.844	0.0144	0.0392	0.309	0.884	0.0071	0.0349	0.179	
0.655	0.0556	0.0625	0.583	0.869	0.0089	0.0356	0.216	0.909	0.0019	0.0315	0.055	
0.688	0.0460	0.0572	0.553	0.895	0.0035	0.0322	0.099	0.933	-0.0033	0.0281	-0.109	
0.727	0.0360	0.0514	0.510	0.922	-0.0022	0.0285	-0.072	0.955	-0.0079	0.0250	-0.302	
0.757	0.0294	0.0475	0.469	0.949	-0.0077	0.0248	-0.294					
0.792	0.0218	0.0428	0.404	0.975	-0.0133	0.0211	-0.612					
0.828	0.0141	0.0380	0.308	0.999	-0.0184	0.0176	-1.048					
0.856	0.0084	0.0343	0.210	1.026	-0.0244	0.0134	-1.867					
0.888	0.0018	0.0303	0.053	1.053	-0.0302	0.0091	-3.505					
Run: pg0461												
Avg RPM: 5499												
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>	0.093	0.1039	0.0837	0.116	0.411	0.0796	0.0568	0.577
0.990	-0.0190	0.0168	-1.121	0.118	0.1029	0.0825	0.147	0.472	0.0722	0.0568	0.600	
1.024	-0.0263	0.0118	-2.285	0.145	0.1022	0.0812	0.182	0.518	0.0629	0.0539	0.604	
1.055	-0.0331	0.0069	-5.030	0.166	0.1017	0.0800	0.211	0.576	0.0498	0.0485	0.592	
Run: kt0463				0.189	0.1013	0.0783	0.245	0.628	0.0387	0.0426	0.571	
Avg RPM: 5007				0.215	0.1032	0.0758	0.293	0.677	0.0296	0.0375	0.533	
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>	0.240	0.1077	0.0723	0.357	0.729	0.0206	0.0322	0.465
0.104	0.1031	0.0832	0.128	0.264	0.1076	0.0724	0.392	0.782	0.0124	0.0279	0.348	
0.130	0.1014	0.0816	0.162	0.287	0.1064	0.0724	0.421	0.824	0.0051	0.0235	0.180	
0.154	0.1010	0.0808	0.193	0.310	0.1049	0.0725	0.449	0.878	-0.0040	0.0180	-0.197	
0.185	0.1003	0.0784	0.237	0.333	0.1032	0.0725	0.474	0.928	-0.0142	0.0114	-1.161	
0.207	0.1007	0.0768	0.272	0.362	0.1008	0.0724	0.504					
0.238	0.1041	0.0735	0.338	0.385	0.0991	0.0726	0.525					
0.262	0.1065	0.0722	0.387	0.405	0.0973	0.0726	0.543					
0.289	0.1051	0.0720	0.422	0.428	0.0955	0.0728	0.561					
0.317	0.1037	0.0721	0.456	0.453	0.0929	0.0727	0.579					
0.343	0.1014	0.0720	0.484	0.480	0.0900	0.0727	0.595					
0.369	0.0998	0.0723	0.509	Run: pg0462								
0.397	0.0969	0.0720	0.535	Avg RPM: 5501								
0.423	0.0948	0.0720	0.557		<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>	0.287	0.0900	0.0566	0.456
0.446	0.0927	0.0721	0.573		0.406	0.0970	0.0724	0.543	0.331	0.0872	0.0564	0.512
0.471	0.0898	0.0719	0.589		0.430	0.0951	0.0727	0.563	0.374	0.0842	0.0564	0.557
0.497	0.0872	0.0720	0.603		0.453	0.0928	0.0727	0.579	0.414	0.0809	0.0566	0.592
0.524	0.0842	0.0717	0.615		0.478	0.0902	0.0727	0.593	0.452	0.0774	0.0569	0.615
Run: kt0464					0.500	0.0876	0.0725	0.605	0.499	0.0709	0.0562	0.629
Avg RPM: 4998					0.525	0.0847	0.0722	0.615	0.536	0.0639	0.0547	0.627
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>	0.553	0.0812	0.0719	0.625	0.584	0.0528	0.0503	0.612
0.446	0.0925	0.0720	0.573		0.574	0.0783	0.0714	0.629	0.625	0.0422	0.0449	0.587
0.473	0.0896	0.0719	0.590					0.654	0.0362	0.0418	0.567	
0.498	0.0868	0.0718	0.603					0.703	0.0273	0.0368	0.521	

0.741	0.0200	0.0322	0.460	0.297	0.0912	0.0571	0.475	Run: rd1093
0.783	0.0124	0.0277	0.351	0.325	0.0893	0.0571	0.508	Avg RPM: 2504
0.825	0.0055	0.0236	0.192	0.355	0.0867	0.0568	0.542	J
				0.386	0.0852	0.0574	0.574	C_T
				0.415	0.0827	0.0574	0.598	C_P
				0.443	0.0797	0.0571	0.618	η
Run: kt1066				0.471	0.0778	0.0577	0.635	0.203
Avg RPM: 2498				0.499	0.0746	0.0574	0.648	0.0908
				0.528	0.0719	0.0578	0.656	0.0481
				0.556	0.0673	0.0569	0.657	0.382
				0.591	0.0591	0.0541	0.645	0.237
								0.272
								0.0868
								0.0486
								0.486
0.700	0.0267	0.0364	0.514					0.272
0.741	0.0192	0.0319	0.447					0.0868
0.783	0.0124	0.0280	0.345					0.0486
0.825	0.0050	0.0236	0.174					0.486
0.866	-0.0023	0.0190	-0.106					0.382
0.907	-0.0096	0.0143	-0.607					0.237
0.945	-0.0167	0.0096	-1.635					0.436
Run: kt1067								0.272
Avg RPM: 3004								0.0868
								0.0486
								0.486
								0.382
								0.237
								0.486
								0.382
								0.237
								0.486
0.205	0.0933	0.0574	0.333					0.272
0.241	0.0927	0.0571	0.391					0.0868
0.272	0.0915	0.0570	0.437					0.0486
0.311	0.0890	0.0568	0.488					0.486
0.347	0.0871	0.0570	0.529					0.382
0.382	0.0842	0.0568	0.566					0.237
0.416	0.0816	0.0570	0.596					0.486
0.451	0.0780	0.0570	0.618					0.382
0.484	0.0744	0.0569	0.633					0.237
0.514	0.0706	0.0566	0.641					0.486
0.554	0.0640	0.0554	0.640					0.382
0.584	0.0569	0.0528	0.629					0.237
0.619	0.0473	0.0484	0.606					0.486
0.650	0.0398	0.0444	0.583					0.382
0.687	0.0318	0.0399	0.548					0.237
Run: kt1068								0.486
Avg RPM: 3005								0.382
								0.237
								0.486
								0.382
								0.237
								0.486
								0.382
0.580	0.0577	0.0531	0.630					0.237
0.615	0.0484	0.0489	0.609					0.486
0.653	0.0388	0.0437	0.579					0.382
0.682	0.0329	0.0404	0.555					0.237
0.721	0.0251	0.0358	0.505					0.486
0.749	0.0199	0.0328	0.455					0.382
0.789	0.0126	0.0282	0.353					0.237
0.830	0.0050	0.0236	0.175					0.486
0.864	-0.0009	0.0200	-0.038					0.382
0.895	-0.0066	0.0164	-0.357					0.237
0.932	-0.0135	0.0119	-1.062					0.486
Run: kt1069								0.382
Avg RPM: 3507								0.237
								0.486
								0.382
								0.237
								0.486
								0.382
								0.237
0.177	0.0960	0.0574	0.296					0.486
0.207	0.0957	0.0571	0.347					0.382
0.234	0.0944	0.0570	0.388					0.237
0.266	0.0931	0.0570	0.434					0.486

Run: rd1096	0.774	0.0083	0.0200	0.322	0.457	0.0578	0.0399	0.661
Avg RPM: 3008	0.797	0.0042	0.0174	0.195	0.482	0.0525	0.0382	0.663
	0.827	-0.0017	0.0134	-0.106	0.522	0.0422	0.0338	0.650
	0.847	-0.0052	0.0109	-0.403	0.545	0.0368	0.0314	0.640
					0.577	0.0292	0.0274	0.615
					0.601	0.0246	0.0251	0.590
APC								
Thin Electric								
19×12								
Figs. 5.176–5.178								
Run: jb1079	0.306	0.0726	0.0419	0.531	0.577	0.0291	0.0273	0.616
Avg RPM: 1500	0.353	0.0643	0.0405	0.561	0.603	0.0241	0.0248	0.586
	0.402	0.0549	0.0377	0.586	0.643	0.0165	0.0210	0.504
	0.465	0.0415	0.0320	0.604	0.665	0.0125	0.0189	0.438
	0.513	0.0325	0.0278	0.599	0.696	0.0068	0.0158	0.298
	0.566	0.0246	0.0243	0.575	0.724	0.0015	0.0129	0.081
	0.615	0.0172	0.0209	0.508	0.757	-0.0052	0.0091	-0.436
Run: rd1097	0.659	0.0094	0.0171	0.362				
Avg RPM: 3398	0.719	-0.0014	0.0114	-0.092				
	0.768	-0.0108	0.0064	-1.299				
Run: jb1080	0.216	0.0848	0.0420	0.437	0.230	0.0871	0.0436	0.459
Avg RPM: 2096	0.254	0.0814	0.0421	0.492	0.256	0.0850	0.0438	0.495
	0.291	0.0782	0.0424	0.537	0.280	0.0828	0.0440	0.528
	0.330	0.0740	0.0424	0.577	0.308	0.0802	0.0441	0.560
	0.367	0.0692	0.0419	0.606	0.329	0.0779	0.0440	0.583
	0.398	0.0642	0.0410	0.624	0.359	0.0745	0.0437	0.612
	0.436	0.0567	0.0389	0.636	0.384	0.0716	0.0435	0.633
	0.474	0.0480	0.0357	0.638	0.407	0.0688	0.0431	0.649
	0.514	0.0384	0.0314	0.628	0.433	0.0652	0.0425	0.665
	0.548	0.0312	0.0278	0.614	0.456	0.0616	0.0417	0.675
	0.576	0.0260	0.0252	0.593	0.480	0.0576	0.0407	0.680
	0.615	0.0193	0.0219	0.542	0.502	0.0534	0.0393	0.683
Run: rd1098	0.651	0.0128	0.0187	0.446				
Avg RPM: 3407	0.686	0.0064	0.0154	0.287				
	0.723	-0.0003	0.0118	-0.016				
Run: jb1081	0.427	0.0659	0.0426	0.661	0.454	0.0619	0.0418	0.672
Avg RPM: 2502	0.484	0.0565	0.0402	0.680	0.508	0.0521	0.0388	0.683
	0.536	0.0456	0.0361	0.677	0.553	0.0418	0.0344	0.671
	0.582	0.0345	0.0309	0.650	0.602	0.0300	0.0287	0.630
	0.632	0.0235	0.0255	0.584	0.652	0.0192	0.0232	0.541
	0.682	0.0130	0.0198	0.448	0.707	0.0081	0.0171	0.336
	0.737	0.0022	0.0137	0.118	0.764	-0.0033	0.0105	-0.238

Graupner				0.396	0.0140	0.0205	0.272	0.353	0.0534	0.0478	0.395
CAM Prop				0.421	0.0095	0.0190	0.211	0.394	0.0473	0.0461	0.404
9×4				0.450	0.0040	0.0171	0.105	0.432	0.0411	0.0438	0.405
Figs. 5.182–5.184				0.476	-0.0009	0.0153	-0.028	0.476	0.0335	0.0409	0.390
Run: rd0924				0.504	-0.0066	0.0131	-0.253	0.517	0.0250	0.0371	0.349
Avg RPM: 4015				0.526	-0.0112	0.0113	-0.522	0.547	0.0193	0.0345	0.306
								0.593	0.0097	0.0300	0.193
Run: rd0927								0.632	0.0016	0.0260	0.039
Avg RPM: 7024								0.671	-0.0064	0.0219	-0.195
J CT CP η				0.091	0.0604	0.0302	0.182	0.708	-0.0142	0.0177	-0.565
0.159 0.0437 0.0281 0.247				0.113	0.0583	0.0300	0.219	0.746	-0.0226	0.0134	-1.258
0.196 0.0389 0.0270 0.283				0.135	0.0559	0.0298	0.254	0.791	-0.0326	0.0080	-3.218
0.238 0.0336 0.0257 0.311				0.160	0.0533	0.0296	0.287	Run: pg0917			
0.281 0.0275 0.0239 0.323				0.179	0.0510	0.0292	0.312	Avg RPM: 5015			
0.317 0.0224 0.0226 0.315				0.205	0.0476	0.0288	0.340	J CT CP η			
0.363 0.0152 0.0204 0.271				0.227	0.0445	0.0282	0.358	0.125	0.0884	0.0530	0.209
0.397 0.0099 0.0188 0.208				0.251	0.0405	0.0274	0.372	0.157	0.0865	0.0530	0.256
0.445 0.0017 0.0163 0.047				0.270	0.0378	0.0269	0.380	0.187	0.0833	0.0530	0.295
0.475 -0.0036 0.0144 -0.118				0.293	0.0345	0.0262	0.386	0.219	0.0794	0.0528	0.330
0.522 -0.0123 0.0113 -0.569				0.318	0.0301	0.0250	0.382	0.250	0.0752	0.0525	0.358
0.562 -0.0198 0.0086 -1.295				0.346	0.0260	0.0242	0.372	0.284	0.0702	0.0518	0.385
0.594 -0.0262 0.0063 -2.484				0.365	0.0222	0.0231	0.352	0.318	0.0648	0.0509	0.405
Run: rd0925				0.384	0.0186	0.0220	0.325	0.344	0.0606	0.0499	0.418
Avg RPM: 5009				0.404	0.0150	0.0209	0.290	0.378	0.0554	0.0486	0.431
J CT CP η				0.427	0.0107	0.0196	0.234	0.407	0.0499	0.0470	0.433
0.127 0.0501 0.0290 0.219				0.452	0.0055	0.0177	0.142	0.436	0.0451	0.0454	0.433
0.158 0.0468 0.0285 0.261								0.472	0.0381	0.0429	0.419
0.191 0.0432 0.0279 0.297								0.508	0.0308	0.0399	0.392
0.225 0.0387 0.0269 0.324								0.527	0.0268	0.0383	0.370
0.256 0.0344 0.0259 0.340								0.562	0.0196	0.0350	0.314
0.286 0.0299 0.0248 0.346								0.597	0.0123	0.0316	0.231
0.322 0.0240 0.0231 0.335								0.626	0.0058	0.0285	0.129
0.348 0.0199 0.0220 0.315											
0.380 0.0144 0.0204 0.269											
0.418 0.0081 0.0184 0.183											
0.450 0.0023 0.0164 0.064											
0.471 -0.0015 0.0151 -0.047											
0.506 -0.0082 0.0126 -0.329											
0.539 -0.0144 0.0103 -0.754											
0.571 -0.0210 0.0079 -1.524											
Run: rd0926											
Avg RPM: 6018											
J CT CP η											
0.104 0.0563 0.0299 0.197											
0.132 0.0534 0.0295 0.238											
0.156 0.0506 0.0291 0.271											
0.187 0.0469 0.0286 0.307											
0.213 0.0435 0.0280 0.332											
0.238 0.0399 0.0272 0.350											
0.263 0.0360 0.0263 0.360											
0.289 0.0324 0.0255 0.367											
0.317 0.0278 0.0243 0.362											
0.341 0.0238 0.0233 0.349											
0.367 0.0194 0.0221 0.322											
Graupner											
CAM Prop											
9×6											
Figs. 5.188–5.190											
Run: pg0916											
Avg RPM: 4009											
J CT CP η											
0.154 0.0820 0.0529 0.239											
0.196 0.0774 0.0527 0.287											
0.231 0.0713 0.0516 0.319											
0.280 0.0637 0.0504 0.354											
0.314 0.0587 0.0490 0.376											
Run: pg0919											
Avg RPM: 6042											
J CT CP η											
0.105 0.0946 0.0521 0.191											
0.130 0.0919 0.0524 0.227											
0.156 0.0895 0.0527 0.265											
0.182 0.0868 0.0528 0.300											
0.210 0.0838 0.0529 0.332											

0.236	0.0806	0.0529	0.359	Run: rd0922	0.174	0.0820	0.0476	0.300
0.260	0.0773	0.0527	0.381	Avg RPM: 6819	0.204	0.0780	0.0475	0.335
0.286	0.0734	0.0524	0.401	J	C_T	C_P	η	0.230
0.311	0.0695	0.0519	0.418	0.388	0.0591	0.0499	0.460	0.261
0.337	0.0658	0.0512	0.432	0.413	0.0550	0.0488	0.466	0.289
0.362	0.0616	0.0504	0.443	0.434	0.0510	0.0476	0.466	0.318
0.389	0.0573	0.0494	0.451	0.459	0.0468	0.0462	0.464	0.345
0.414	0.0529	0.0482	0.454	0.483	0.0422	0.0448	0.455	0.372
0.443	0.0476	0.0466	0.453	0.503	0.0383	0.0434	0.444	0.404
0.468	0.0430	0.0450	0.448	0.529	0.0323	0.0410	0.417	0.429
0.493	0.0382	0.0432	0.436	0.556	0.0274	0.0391	0.390	0.462
0.519	0.0328	0.0410	0.415	0.572	0.0238	0.0377	0.362	0.487
Run: pg0920				0.604	0.0168	0.0344	0.295	0.518
Avg RPM: 6019				0.625	0.0119	0.0320	0.233	0.548
	J	C_T	C_P	η	0.645	0.0074	0.0297	0.160
0.441	0.0476	0.0465	0.452	0.673	0.0005	0.0261	0.012	0.576
0.467	0.0429	0.0449	0.446	0.692	-0.0040	0.0236	-0.117	0.0143
0.493	0.0380	0.0431	0.434	0.717	-0.0099	0.0204	-0.347	0.0281
0.519	0.0327	0.0410	0.413	0.737	-0.0145	0.0179	-0.600	0.293
0.545	0.0273	0.0389	0.382	0.765	-0.0214	0.0139	-1.178	
0.575	0.0207	0.0359	0.330	0.781	-0.0254	0.0117	-1.691	
0.596	0.0159	0.0338	0.280	0.807	-0.0320	0.0078	-3.297	
0.626	0.0091	0.0305	0.186					
0.649	0.0040	0.0279	0.093					
0.682	-0.0037	0.0238	-0.107					
0.704	-0.0089	0.0209	-0.299					
0.725	-0.0136	0.0183	-0.537					
0.762	-0.0230	0.0131	-1.335					
0.789	-0.0293	0.0094	-2.448					
Run: pg0921								
Avg RPM: 6803								
	J	C_T	C_P	η				
0.092	0.0966	0.0513	0.174	0.142	0.0815	0.0475	0.244	
0.115	0.0952	0.0516	0.212	0.179	0.0765	0.0473	0.289	
0.139	0.0934	0.0521	0.250	0.217	0.0711	0.0467	0.331	
0.163	0.0911	0.0525	0.282	0.253	0.0657	0.0456	0.365	
0.185	0.0892	0.0528	0.313	0.289	0.0613	0.0448	0.396	
0.208	0.0856	0.0527	0.339	0.326	0.0562	0.0437	0.420	
0.232	0.0831	0.0531	0.363	0.362	0.0505	0.0421	0.434	
0.254	0.0799	0.0527	0.385	0.398	0.0444	0.0402	0.441	
0.279	0.0766	0.0527	0.406	0.439	0.0369	0.0374	0.433	
0.303	0.0732	0.0523	0.424	0.464	0.0323	0.0355	0.422	
0.322	0.0700	0.0518	0.435	0.506	0.0244	0.0322	0.383	
0.345	0.0668	0.0516	0.447	0.549	0.0159	0.0283	0.308	
0.368	0.0630	0.0508	0.456	0.582	0.0096	0.0255	0.219	
0.390	0.0596	0.0501	0.463	0.617	0.0023	0.0220	0.066	
0.412	0.0557	0.0491	0.467	0.650	-0.0043	0.0187	-0.148	
0.434	0.0515	0.0479	0.468	0.686	-0.0122	0.0144	-0.581	
0.461	0.0471	0.0466	0.466	0.721	-0.0198	0.0106	-1.341	
Run: jb0852								
Avg RPM: 4012								
	J	C_T	C_P	η				
0.142	0.0815	0.0475	0.244	0.179	0.0765	0.0473	0.289	
0.217	0.0711	0.0467	0.331	0.253	0.0657	0.0456	0.365	
0.289	0.0613	0.0448	0.396	0.326	0.0562	0.0437	0.420	
0.326	0.0562	0.0437	0.420	0.362	0.0505	0.0421	0.434	
0.362	0.0505	0.0421	0.434	0.398	0.0444	0.0402	0.441	
0.439	0.0369	0.0374	0.433	0.464	0.0323	0.0355	0.422	
0.464	0.0323	0.0355	0.422	0.506	0.0244	0.0322	0.383	
0.506	0.0244	0.0322	0.383	0.549	0.0159	0.0283	0.308	
0.582	0.0096	0.0255	0.219	0.617	0.0023	0.0220	0.066	
0.617	0.0023	0.0220	0.066	0.650	-0.0043	0.0187	-0.148	
0.650	-0.0043	0.0187	-0.148	0.686	-0.0122	0.0144	-0.581	
0.721	-0.0198	0.0106	-1.341	0.721	-0.0198	0.0106	-1.341	
Run: jb0853								
Avg RPM: 5014								
	J	C_T	C_P	η				
0.115	0.0893	0.0472	0.218	0.144	0.0858	0.0477	0.260	

Run: jb0856				Run: rd0846			
Avg RPM: 6025				Avg RPM: 3997			
<i>J</i>	C_T	C_P	η	<i>J</i>	C_T	C_P	η
0.406	0.0511	0.0426	0.487	0.614	0.0118	0.0274	0.265
0.431	0.0467	0.0414	0.486	0.637	0.0067	0.0249	0.171
0.453	0.0425	0.0400	0.481	0.658	0.0019	0.0227	0.055
0.480	0.0368	0.0379	0.467	0.680	-0.0032	0.0200	-0.109
0.502	0.0327	0.0363	0.453	0.702	-0.0088	0.0169	-0.366
0.526	0.0281	0.0344	0.429	0.724	-0.0137	0.0141	-0.706
0.549	0.0234	0.0325	0.396	0.745	-0.0189	0.0110	-1.282
0.571	0.0189	0.0306	0.353	0.768	-0.0245	0.0076	-2.462
0.605	0.0117	0.0273	0.260	<hr/>			
0.623	0.0077	0.0253	0.190	Graupner			
0.653	0.0011	0.0218	0.031	CAM Prop			
0.672	-0.0035	0.0197	-0.119	10×8			
0.701	-0.0106	0.0158	-0.471	Figs. 5.200–5.202			
0.724	-0.0159	0.0127	-0.902	<hr/>			
0.737	-0.0192	0.0108	-1.315	Run: rd0844			
Run: jb0857				Avg RPM: 3013			
Avg RPM: 6626				<i>J</i>	C_T	C_P	η
0.087	0.0955	0.0459	0.181	0.186	0.0896	0.0658	0.254
0.106	0.0944	0.0464	0.216	0.237	0.0867	0.0651	0.315
0.130	0.0923	0.0469	0.256	0.284	0.0816	0.0644	0.360
0.153	0.0899	0.0472	0.291	0.336	0.0743	0.0633	0.395
0.175	0.0871	0.0473	0.323	0.382	0.0683	0.0619	0.421
0.198	0.0844	0.0476	0.352	0.435	0.0613	0.0599	0.445
0.220	0.0810	0.0478	0.372	0.482	0.0542	0.0576	0.454
0.243	0.0777	0.0476	0.397	0.530	0.0469	0.0548	0.453
0.264	0.0748	0.0473	0.417	0.586	0.0368	0.0505	0.428
0.285	0.0713	0.0467	0.435	0.623	0.0298	0.0469	0.396
0.303	0.0691	0.0466	0.450	0.682	0.0175	0.0398	0.300
0.325	0.0659	0.0462	0.464	0.710	0.0120	0.0365	0.233
0.347	0.0625	0.0455	0.477	0.771	-0.0003	0.0286	-0.007
0.376	0.0580	0.0446	0.488	0.819	-0.0104	0.0222	-0.383
0.392	0.0550	0.0438	0.492	0.873	-0.0214	0.0150	-1.243
0.414	0.0516	0.0431	0.496	0.926	-0.0331	0.0077	-3.980
0.433	0.0482	0.0419	0.498	Run: rd0845			
Run: jb0858				Avg RPM: 4020			
Avg RPM: 6608				<i>J</i>	C_T	C_P	η
0.372	0.0584	0.0446	0.487	0.145	0.0960	0.0651	0.214
0.392	0.0548	0.0437	0.492	0.179	0.0946	0.0648	0.261
0.414	0.0515	0.0429	0.498	0.214	0.0935	0.0649	0.308
0.438	0.0474	0.0418	0.496	0.252	0.0910	0.0648	0.354
0.463	0.0427	0.0402	0.491	0.290	0.0876	0.0649	0.392
0.480	0.0395	0.0391	0.485	0.326	0.0838	0.0647	0.422
0.500	0.0354	0.0376	0.472	0.358	0.0796	0.0643	0.443
0.528	0.0296	0.0352	0.443	0.403	0.0726	0.0632	0.463
0.548	0.0258	0.0337	0.419	0.436	0.0674	0.0621	0.473
0.567	0.0220	0.0322	0.388	0.470	0.0616	0.0603	0.481
0.594	0.0161	0.0296	0.324	0.512	0.0545	0.0579	0.481
				0.543	0.0494	0.0561	0.479
				0.577	0.0434	0.0536	0.467
				0.614	0.0362	0.0505	0.440
				0.646	0.0298	0.0472	0.407
				0.684	0.0218	0.0428	0.348
				0.724	0.0128	0.0375	0.247
Run: rd0848				Avg RPM: 5007			
Avg RPM: 5014				<i>J</i>	C_T	C_P	η
0.114	0.1018	0.0644	0.180	0.484	0.0635	0.0612	0.503
0.144	0.1004	0.0647	0.224	0.519	0.0576	0.0594	0.504
0.171	0.0995	0.0647	0.263	0.546	0.0530	0.0578	0.500
0.203	0.0981	0.0648	0.307	0.571	0.0484	0.0561	0.493
0.230	0.0947	0.0645	0.337	0.604	0.0421	0.0534	0.476
0.262	0.0921	0.0648	0.373	0.629	0.0374	0.0513	0.458
0.291	0.0894	0.0649	0.400	0.664	0.0302	0.0477	0.421
0.321	0.0861	0.0647	0.427	0.697	0.0234	0.0441	0.370
0.350	0.0828	0.0645	0.449	0.725	0.0172	0.0405	0.308
0.374	0.0799	0.0643	0.465	0.755	0.0106	0.0366	0.219
0.407	0.0757	0.0637	0.484	0.784	0.0040	0.0324	0.098
0.430	0.0723	0.0631	0.492	0.812	-0.0025	0.0283	-0.072
0.464	0.0668	0.0621	0.500	0.841	-0.0090	0.0240	-0.316
0.484	0.0632	0.0608	0.502	0.520	0.0574	0.0593	0.503
0.545	0.0532	0.0580	0.500	0.545	0.0532	0.0580	0.500
0.571	0.0485	0.0562	0.493	0.571	0.0485	0.0562	0.493

Run: rd0849
Avg RPM: 6007

J	C_T	C_P	η
0.097	0.1048	0.0640	0.159
0.120	0.1045	0.0640	0.196
0.145	0.1041	0.0640	0.235
0.167	0.1034	0.0640	0.270
0.193	0.1024	0.0642	0.308
0.216	0.1007	0.0643	0.339
0.243	0.0987	0.0648	0.369
0.267	0.0958	0.0651	0.392
0.291	0.0922	0.0653	0.410
0.312	0.0893	0.0651	0.429
0.340	0.0863	0.0652	0.450
0.363	0.0836	0.0650	0.467
0.389	0.0805	0.0648	0.482
0.411	0.0773	0.0643	0.494
0.431	0.0743	0.0639	0.502
0.455	0.0709	0.0632	0.511
0.482	0.0666	0.0622	0.516

Run: rd0850

Avg RPM: 6019

J	C_T	C_P	η
0.408	0.0775	0.0643	0.492
0.435	0.0737	0.0637	0.504
0.459	0.0700	0.0629	0.511
0.482	0.0667	0.0622	0.517
0.501	0.0634	0.0613	0.519
0.525	0.0595	0.0602	0.519
0.553	0.0546	0.0587	0.514
0.576	0.0503	0.0570	0.508
0.598	0.0464	0.0557	0.499
0.625	0.0415	0.0536	0.484
0.647	0.0375	0.0518	0.469
0.676	0.0317	0.0489	0.437
0.693	0.0277	0.0468	0.410
0.715	0.0234	0.0446	0.376
0.750	0.0159	0.0402	0.296
0.770	0.0114	0.0376	0.234
0.792	0.0066	0.0346	0.151
0.813	0.0017	0.0316	0.043
0.837	-0.0041	0.0280	-0.122
0.869	-0.0127	0.0227	-0.486
0.892	-0.0186	0.0186	-0.891
0.917	-0.0248	0.0142	-1.605
0.942	-0.0310	0.0097	-2.996

Graupner
CAM Prop
11×4
Figs. 5.206–5.208

Run: rd0551

Avg RPM: 3008

J	C_T	C_P	η
0.173	0.0353	0.0205	0.297
0.212	0.0304	0.0195	0.332
0.265	0.0228	0.0176	0.344
0.296	0.0184	0.0166	0.328
0.347	0.0108	0.0148	0.254
0.388	0.0043	0.0131	0.129
0.438	-0.0043	0.0107	-0.178
0.484	-0.0126	0.0080	-0.763

Run: rd0552

Avg RPM: 3994

J	C_T	C_P	η
0.129	0.0450	0.0223	0.259

0.161	0.0413	0.0218	0.306
0.194	0.0373	0.0210	0.345
0.225	0.0328	0.0200	0.370
0.264	0.0270	0.0188	0.380
0.296	0.0218	0.0176	0.368
0.326	0.0171	0.0165	0.339
0.363	0.0108	0.0147	0.265
0.393	0.0052	0.0132	0.155
0.425	-0.0006	0.0114	-0.024
0.458	-0.0065	0.0096	-0.313
0.491	-0.0130	0.0075	-0.848

Run: rd0553

Avg RPM: 5001

J	C_T	C_P	η
0.102	0.0519	0.0231	0.229
0.130	0.0487	0.0227	0.279
0.154	0.0460	0.0223	0.316

0.183	0.0421	0.0218	0.354
0.208	0.0387	0.0213	0.379
0.236	0.0349	0.0205	0.400
0.263	0.0307	0.0197	0.410
0.289	0.0267	0.0189	0.408
0.311	0.0229	0.0180	0.395
0.337	0.0183	0.0169	0.364
0.367	0.0128	0.0154	0.305
0.393	0.0082	0.0141	0.227
0.415	0.0037	0.0127	0.120
0.444	-0.0019	0.0109	-0.076
0.466	-0.0062	0.0094	-0.307
0.494	-0.0118	0.0076	-0.760

Run: rd0554
Avg RPM: 6004

J	C_T	C_P	η
0.084	0.0573	0.0236	0.205
0.109	0.0549	0.0234	0.256
0.131	0.0523	0.0232	0.296
0.151	0.0500	0.0229	0.329

0.173	0.0471	0.0225	0.361
0.196	0.0441	0.0221	0.391
0.217	0.0413	0.0217	0.414
0.240	0.0378	0.0211	0.431
0.262	0.0346	0.0206	0.440

0.280	0.0317	0.0200	0.444
0.302	0.0278	0.0191	0.439
0.328	0.0233	0.0181	0.422
0.349	0.0196	0.0172	0.398

0.367	0.0162	0.0163	0.366
0.389	0.0120	0.0150	0.311
0.410	0.0078	0.0137	0.233
0.431	0.0035	0.0123	0.122

Run: rd0555

Avg RPM: 5996

J	C_T	C_P	η
0.369	0.0156	0.0162	0.355
0.389	0.0117	0.0150	0.302
0.410	0.0075	0.0137	0.224
0.432	0.0031	0.0123	0.110
0.453	-0.0012	0.0108	-0.049
0.477	-0.0063	0.0091	-0.330
0.501	-0.0114	0.0075	-0.761

Graupner
CAM Prop
11×6
Figs. 5.212–5.214

Run: rd0557

Avg RPM: 3008

J	C_T	C_P	η
0.166	0.0543	0.0318	0.284
0.211	0.0501	0.0310	0.341
0.254	0.0446	0.0298	0.382
0.302	0.0384	0.0281	0.413
0.349	0.0309	0.0258	0.418
0.389	0.0246	0.0236	0.406
0.437	0.0166	0.0206	0.352
0.480	0.0089	0.0175	0.244
0.516	0.0026	0.0149	0.089
0.560	-0.0050	0.0117	-0.241
0.609	-0.0139	0.0078	-1.091

Run: rd0558		Run: rd0561	
Avg RPM: 4001		Avg RPM: 6001	
J	C_T	C_P	η
0.129	0.0669	0.0340	0.254
0.159	0.0625	0.0334	0.297
0.192	0.0582	0.0328	0.341
0.228	0.0532	0.0319	0.380
0.258	0.0489	0.0311	0.406
0.292	0.0440	0.0299	0.429
0.327	0.0387	0.0286	0.443
0.355	0.0344	0.0273	0.447
0.393	0.0281	0.0252	0.437
0.424	0.0227	0.0234	0.411
0.456	0.0170	0.0213	0.363
0.488	0.0108	0.0189	0.279
0.516	0.0055	0.0168	0.168
0.549	-0.0010	0.0140	-0.038
0.580	-0.0073	0.0110	-0.386
0.612	-0.0136	0.0081	-1.023
Run: rd0559		Run: rd0562	
Avg RPM: 5002		Avg RPM: 6001	
J	C_T	C_P	η
0.105	0.0758	0.0340	0.233
0.130	0.0722	0.0341	0.275
0.154	0.0690	0.0339	0.314
0.182	0.0654	0.0336	0.355
0.207	0.0620	0.0333	0.385
0.234	0.0580	0.0327	0.414
0.260	0.0541	0.0321	0.438
0.284	0.0501	0.0313	0.454
0.313	0.0454	0.0302	0.471
0.338	0.0413	0.0292	0.479
0.360	0.0380	0.0283	0.483
0.392	0.0323	0.0265	0.478
0.416	0.0281	0.0252	0.465
0.442	0.0233	0.0236	0.437
0.464	0.0193	0.0221	0.404
0.490	0.0140	0.0201	0.342
0.515	0.0091	0.0182	0.256
Run: rd0560		Run: rd0564	
Avg RPM: 4998		Avg RPM: 4002	
J	C_T	C_P	η
0.439	0.0237	0.0237	0.440
0.464	0.0190	0.0219	0.401
0.490	0.0139	0.0200	0.341
0.515	0.0089	0.0181	0.254
0.541	0.0034	0.0157	0.116
0.566	-0.0018	0.0135	-0.077
0.592	-0.0072	0.0110	-0.388
0.619	-0.0128	0.0082	-0.967
0.643	-0.0182	0.0059	-1.979
Run: rd0561		Run: rd0565	
Avg RPM: 6001		Avg RPM: 5019	
J	C_T	C_P	η
0.085	0.0811	0.0337	0.205
0.111	0.0786	0.0340	0.257
0.128	0.0768	0.0340	0.288
0.150	0.0745	0.0342	0.327
0.171	0.0718	0.0341	0.361
0.194	0.0691	0.0342	0.392
0.216	0.0659	0.0340	0.419
0.238	0.0625	0.0336	0.444
0.260	0.0587	0.0331	0.460
0.278	0.0557	0.0326	0.475
0.301	0.0519	0.0320	0.489
0.325	0.0478	0.0310	0.501
0.345	0.0447	0.0303	0.509
0.365	0.0409	0.0293	0.510
0.385	0.0375	0.0283	0.509
0.408	0.0333	0.0271	0.502
0.431	0.0289	0.0257	0.486
Run: rd0562		Run: rd0644	
Avg RPM: 6001		Avg RPM: 4002	
J	C_T	C_P	η
0.363	0.0409	0.0293	0.508
0.386	0.0369	0.0281	0.508
0.409	0.0327	0.0268	0.499
0.432	0.0287	0.0256	0.484
0.449	0.0255	0.0246	0.466
0.473	0.0207	0.0228	0.429
0.492	0.0171	0.0215	0.391
0.516	0.0121	0.0195	0.321
0.541	0.0068	0.0173	0.214
0.562	0.0024	0.0153	0.087
0.583	-0.0020	0.0133	-0.090
0.605	-0.0067	0.0110	-0.367
0.626	-0.0113	0.0088	-0.808
0.648	-0.0165	0.0065	-1.637
<hr/>			
Graupner			
CAM Prop			
11×8			
Figs. 5.218–5.220			
<hr/>			
Run: kt0642		Run: kt0645	
Avg RPM: 3009		Avg RPM: 5019	
J	C_T	C_P	η
0.172	0.0925	0.0573	0.277
0.218	0.0888	0.0570	0.340
0.259	0.0838	0.0565	0.385
0.308	0.0775	0.0557	0.428
0.350	0.0713	0.0545	0.458
0.400	0.0643	0.0528	0.487
0.436	0.0592	0.0511	0.505
Run: kt0644		Run: kt0646	
Avg RPM: 4002		Avg RPM: 5019	
J	C_T	C_P	η
0.555	0.0457	0.0469	0.541
0.591	0.0395	0.0444	0.525
0.614	0.0352	0.0424	0.510
0.660	0.0250	0.0371	0.445
0.681	0.0212	0.0350	0.412
0.720	0.0124	0.0298	0.299
0.754	0.0051	0.0254	0.152
0.785	-0.0014	0.0214	-0.050
0.819	-0.0097	0.0172	-0.460
0.851	-0.0169	0.0129	-1.119
0.886	-0.0252	0.0076	-2.931
Run: kt0645		Run: kt0647	
Avg RPM: 5019		Avg RPM: 5019	
J	C_T	C_P	η
0.104	0.1021	0.0573	0.185
0.131	0.1013	0.0571	0.233
0.157	0.1003	0.0571	0.276
0.182	0.0992	0.0571	0.317
0.208	0.0971	0.0570	0.355

0.237	0.0951	0.0573	0.394
0.264	0.0921	0.0573	0.425
0.290	0.0899	0.0576	0.452
0.313	0.0874	0.0575	0.476
0.344	0.0831	0.0569	0.502
0.368	0.0804	0.0569	0.520
0.390	0.0773	0.0565	0.533
0.419	0.0724	0.0554	0.548
0.445	0.0687	0.0546	0.560
0.470	0.0650	0.0537	0.569
0.494	0.0612	0.0528	0.572
0.525	0.0559	0.0511	0.574
Run: kt0646			
Avg RPM: 5008			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.444	0.0682	0.0544	0.556
0.469	0.0645	0.0536	0.565
0.498	0.0601	0.0525	0.570
0.522	0.0561	0.0511	0.572
0.546	0.0518	0.0497	0.570
0.576	0.0467	0.0478	0.564
0.600	0.0421	0.0458	0.552
0.629	0.0365	0.0432	0.531
0.651	0.0321	0.0412	0.509
0.681	0.0258	0.0379	0.464
0.712	0.0194	0.0344	0.402
0.730	0.0158	0.0324	0.357
0.761	0.0090	0.0285	0.241
0.791	0.0024	0.0246	0.077
0.816	-0.0031	0.0213	-0.117
0.843	-0.0106	0.0175	-0.511
0.870	-0.0172	0.0133	-1.133
0.895	-0.0233	0.0092	-2.257

Run: kt0647			
Avg RPM: 5997			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.086	0.1092	0.0566	0.166
0.109	0.1086	0.0567	0.209
0.132	0.1070	0.0567	0.250
0.153	0.1060	0.0570	0.284
0.175	0.1049	0.0573	0.320
0.196	0.1030	0.0572	0.352
0.220	0.1006	0.0574	0.385
0.243	0.0986	0.0578	0.414
0.264	0.0962	0.0579	0.439
0.287	0.0933	0.0579	0.462
0.310	0.0907	0.0580	0.484
0.331	0.0876	0.0577	0.502
0.353	0.0851	0.0577	0.521
0.371	0.0824	0.0574	0.533
0.392	0.0795	0.0570	0.547
0.414	0.0766	0.0566	0.560
0.435	0.0733	0.0559	0.570

Run: kt0648			
Avg RPM: 6016			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.374	0.0821	0.0574	0.535
0.396	0.0792	0.0571	0.549
0.415	0.0763	0.0565	0.560
0.436	0.0729	0.0559	0.569
0.457	0.0698	0.0552	0.578
0.481	0.0663	0.0545	0.585
0.505	0.0623	0.0534	0.589
0.522	0.0591	0.0524	0.589
0.543	0.0559	0.0514	0.590
0.571	0.0507	0.0495	0.584
0.591	0.0469	0.0480	0.577
0.610	0.0440	0.0470	0.572
0.636	0.0387	0.0446	0.552
0.656	0.0349	0.0428	0.534
0.680	0.0301	0.0405	0.504
0.698	0.0264	0.0386	0.478
0.725	0.0208	0.0356	0.424
0.742	0.0174	0.0338	0.383
0.767	0.0121	0.0307	0.301
0.785	0.0085	0.0287	0.232
0.811	0.0024	0.0250	0.076
0.830	-0.0027	0.0227	-0.098
0.856	-0.0094	0.0187	-0.429
0.870	-0.0126	0.0167	-0.657
Graupner			
CAM Slim			
9×6			
Figs. 5.224–5.226			
Run: pg0953			
Avg RPM: 3997			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.669	0.0336	0.0551	0.407
0.702	0.0265	0.0517	0.361
0.754	0.0149	0.0457	0.246
0.794	0.0052	0.0404	0.103
0.834	-0.0045	0.0349	-0.109
0.870	-0.0138	0.0296	-0.406
0.911	-0.0246	0.0232	-0.968
0.945	-0.0342	0.0174	-1.859
0.985	-0.0452	0.0109	-4.074
Run: pg0951			
Avg RPM: 5024			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.125	0.1222	0.0826	0.184
0.158	0.1199	0.0824	0.229
0.188	0.1179	0.0823	0.269
0.222	0.1152	0.0822	0.311
0.250	0.1128	0.0822	0.344
0.284	0.1096	0.0821	0.379
0.317	0.1065	0.0822	0.410
0.347	0.1028	0.0820	0.435
0.375	0.0988	0.0815	0.455
0.414	0.0924	0.0804	0.476
0.439	0.0879	0.0792	0.487
0.474	0.0812	0.0773	0.498
0.509	0.0733	0.0744	0.502
0.533	0.0676	0.0719	0.501
0.568	0.0591	0.0680	0.494
0.592	0.0533	0.0651	0.485
0.631	0.0444	0.0609	0.460
Run: pg0946			
Avg RPM: 4017			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.155	0.1201	0.0827	0.226
0.195	0.1168	0.0827	0.275
0.234	0.1147	0.0834	0.322
0.280	0.1099	0.0829	0.371
0.313	0.1054	0.0823	0.400
0.358	0.0983	0.0813	0.433
0.396	0.0926	0.0801	0.458
0.434	0.0847	0.0776	0.473
0.476	0.0764	0.0747	0.486
0.518	0.0672	0.0709	0.491
0.552	0.0594	0.0672	0.488
0.591	0.0511	0.0635	0.476
0.639	0.0403	0.0582	0.442
0.667	0.0341	0.0551	0.413
0.716	0.0235	0.0499	0.338
0.740	0.0182	0.0472	0.285
0.790	0.0062	0.0409	0.120
Run: pg0952			
Avg RPM: 5007			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.533	0.0677	0.0722	0.499
0.563	0.0606	0.0689	0.495
0.600	0.0516	0.0644	0.480
0.626	0.0456	0.0616	0.464
0.662	0.0373	0.0576	0.429
0.688	0.0312	0.0546	0.394
0.730	0.0214	0.0492	0.317
0.749	0.0169	0.0468	0.270
0.789	0.0074	0.0417	0.141
0.819	-0.0002	0.0373	-0.005
0.851	-0.0080	0.0327	-0.209
0.882	-0.0161	0.0280	-0.507
0.915	-0.0250	0.0226	-1.013
0.943	-0.0329	0.0181	-1.718
0.976	-0.0422	0.0125	-3.294
1.016	-0.0535	0.0058	-9.300

Run: pg0954					0.194	0.1200	0.0833	0.279		0.395	0.0691	0.0560	0.488
Avg RPM: 6013					0.216	0.1185	0.0834	0.307		0.440	0.0600	0.0525	0.503
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.247	0.1159	0.0833	0.343		0.495	0.0496	0.0488	0.503
0.105	0.1258	0.0836	0.158		0.270	0.1143	0.0834	0.370		0.535	0.0423	0.0459	0.493
0.131	0.1241	0.0836	0.195		0.293	0.1116	0.0830	0.394		0.592	0.0319	0.0419	0.450
0.157	0.1222	0.0834	0.230		0.318	0.1090	0.0832	0.417		0.629	0.0240	0.0384	0.393
0.184	0.1202	0.0834	0.265		0.342	0.1061	0.0829	0.437		0.680	0.0127	0.0331	0.260
0.212	0.1181	0.0832	0.301		0.367	0.1033	0.0829	0.457		0.738	-0.0009	0.0268	-0.026
0.236	0.1162	0.0831	0.330		0.390	0.1001	0.0826	0.472		0.790	-0.0136	0.0207	-0.519
0.263	0.1140	0.0831	0.360		0.411	0.0969	0.0820	0.486		0.824	-0.0227	0.0161	-1.159
0.290	0.1114	0.0831	0.389		0.435	0.0937	0.0819	0.498		0.879	-0.0368	0.0092	-3.517
0.318	0.1083	0.0829	0.416		0.457	0.0888	0.0804	0.505					
0.341	0.1057	0.0828	0.435		0.480	0.0837	0.0787	0.510					
0.367	0.1025	0.0828	0.454										
0.393	0.0988	0.0823	0.472										
0.419	0.0948	0.0816	0.486										
0.449	0.0898	0.0808	0.499										
0.474	0.0849	0.0795	0.506										
0.495	0.0805	0.0781	0.510										
0.525	0.0740	0.0757	0.513										
Run: pg0955					0.511	0.0775	0.0770	0.514		0.363	0.0820	0.0612	0.487
Avg RPM: 6024					0.533	0.0736	0.0758	0.518		0.402	0.0736	0.0586	0.505
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.556	0.0684	0.0739	0.514		0.440	0.0655	0.0557	0.517
0.445	0.0904	0.0808	0.498		0.579	0.0631	0.0716	0.510		0.481	0.0556	0.0514	0.519
0.470	0.0852	0.0794	0.505		0.605	0.0562	0.0684	0.498		0.506	0.0503	0.0493	0.517
0.495	0.0804	0.0780	0.510		0.632	0.0494	0.0651	0.479		0.546	0.0416	0.0455	0.499
0.521	0.0750	0.0763	0.512		0.654	0.0439	0.0624	0.461		0.584	0.0339	0.0423	0.468
0.552	0.0676	0.0732	0.510		0.681	0.0371	0.0588	0.430		0.620	0.0265	0.0392	0.419
0.576	0.0612	0.0702	0.503		0.704	0.0312	0.0556	0.396		0.656	0.0188	0.0357	0.345
0.601	0.0556	0.0677	0.493		0.731	0.0246	0.0520	0.346		0.693	0.0101	0.0317	0.221
0.625	0.0493	0.0645	0.477		0.753	0.0191	0.0487	0.295		0.727	0.0020	0.0278	0.052
0.662	0.0402	0.0600	0.444		0.773	0.0140	0.0458	0.236					
0.683	0.0352	0.0573	0.419		0.805	0.0059	0.0411	0.115					
0.703	0.0303	0.0547	0.389		0.823	0.0008	0.0380	0.018					
0.735	0.0224	0.0504	0.327		0.845	-0.0047	0.0347	-0.114					
0.762	0.0157	0.0466	0.256		0.877	-0.0131	0.0297	-0.386					
0.785	0.0100	0.0433	0.181		0.896	-0.0183	0.0264	-0.621					
0.811	0.0034	0.0396	0.070		0.924	-0.0261	0.0217	-1.110					
0.845	-0.0051	0.0345	-0.125		0.950	-0.0333	0.0173	-1.823					
0.865	-0.0105	0.0312	-0.291		0.968	-0.0386	0.0143	-2.620					
0.897	-0.0191	0.0260	-0.658										
0.916	-0.0245	0.0228	-0.986										
0.952	-0.0345	0.0168	-1.960										
0.967	-0.0387	0.0143	-2.619										
1.001	-0.0488	0.0084	-5.830										
Run: pg0956													
Avg RPM: 6520													
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.097	0.1267	0.0836	0.147		0.116	0.1157	0.0627	0.213
0.124	0.1255	0.0839	0.185		0.193	0.1035	0.0638	0.313		0.141	0.1133	0.0628	0.254
0.144	0.1241	0.0839	0.212		0.244	0.0965	0.0634	0.371		0.178	0.1102	0.0632	0.310
0.169	0.1219	0.0836	0.247		0.288	0.0897	0.0623	0.415		0.205	0.1075	0.0636	0.347
					0.342	0.0801	0.0599	0.457		0.234	0.1046	0.0640	0.382
										0.265	0.1009	0.0642	0.417
										0.295	0.0972	0.0642	0.446

0.321	0.0933	0.0639	0.468
0.349	0.0887	0.0634	0.489
0.378	0.0836	0.0625	0.506
0.405	0.0784	0.0612	0.518
0.437	0.0710	0.0588	0.527
0.464	0.0648	0.0564	0.533
0.494	0.0575	0.0534	0.531
0.525	0.0499	0.0500	0.524
0.549	0.0444	0.0476	0.512
0.583	0.0360	0.0436	0.481

Run: jb0872

Avg RPM: 5003

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.494	0.0569	0.0532	0.529
0.520	0.0509	0.0505	0.524
0.553	0.0429	0.0469	0.507
0.577	0.0378	0.0446	0.489
0.612	0.0294	0.0407	0.442
0.634	0.0244	0.0384	0.403
0.670	0.0162	0.0345	0.314
0.698	0.0097	0.0314	0.215
0.728	0.0026	0.0280	0.067
0.757	-0.0045	0.0247	-0.138
0.793	-0.0139	0.0200	-0.552
0.823	-0.0220	0.0160	-1.134
0.851	-0.0295	0.0123	-2.042
0.877	-0.0367	0.0086	-3.748

Run: jb0873

Avg RPM: 6032

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.095	0.1185	0.0632	0.178
0.119	0.1168	0.0635	0.218
0.143	0.1150	0.0638	0.258
0.169	0.1126	0.0640	0.298
0.195	0.1104	0.0643	0.334
0.219	0.1076	0.0644	0.367
0.243	0.1050	0.0647	0.395
0.268	0.1023	0.0649	0.423
0.292	0.0991	0.0648	0.447
0.317	0.0960	0.0649	0.469
0.341	0.0921	0.0644	0.488
0.361	0.0889	0.0641	0.501
0.384	0.0849	0.0634	0.515
0.413	0.0800	0.0626	0.528
0.436	0.0750	0.0612	0.535
0.460	0.0703	0.0598	0.541
0.482	0.0650	0.0578	0.543

Run: jb0874

Avg RPM: 6018

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.412	0.0798	0.0623	0.528
0.437	0.0750	0.0611	0.536
0.461	0.0699	0.0595	0.541
0.481	0.0654	0.0579	0.543
0.510	0.0581	0.0548	0.541
0.531	0.0525	0.0522	0.534
0.554	0.0470	0.0498	0.523
0.583	0.0398	0.0464	0.500
0.609	0.0332	0.0433	0.467
0.630	0.0280	0.0407	0.434
0.659	0.0206	0.0370	0.367
0.675	0.0167	0.0351	0.321
0.698	0.0113	0.0324	0.244
0.721	0.0055	0.0295	0.134
0.752	-0.0023	0.0257	-0.067
0.780	-0.0096	0.0221	-0.339
0.805	-0.0164	0.0187	-0.703
0.822	-0.0211	0.0163	-1.067
0.854	-0.0297	0.0119	-2.125
0.880	-0.0370	0.0083	-3.926
0.893	-0.0404	0.0066	-5.497

Run: jb0861

Avg RPM: 4006

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.146	0.1270	0.0873	0.212
0.182	0.1250	0.0872	0.261
0.220	0.1228	0.0872	0.310
0.258	0.1201	0.0872	0.355
0.292	0.1174	0.0872	0.393
0.331	0.1137	0.0871	0.432
0.368	0.1098	0.0870	0.464
0.399	0.1062	0.0869	0.488
0.436	0.1014	0.0865	0.511
0.471	0.0970	0.0864	0.529
0.508	0.0916	0.0861	0.541
0.546	0.0833	0.0836	0.544
0.580	0.0768	0.0817	0.545
0.619	0.0659	0.0767	0.532
0.648	0.0584	0.0729	0.519
0.693	0.0473	0.0671	0.488
0.729	0.0377	0.0615	0.447

Run: jb0862

Avg RPM: 4001

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.617	0.0662	0.0768	0.532
0.650	0.0580	0.0727	0.519
0.691	0.0472	0.0667	0.489
0.730	0.0374	0.0612	0.446
0.759	0.0307	0.0575	0.405
0.801	0.0207	0.0518	0.319
0.831	0.0137	0.0479	0.238
0.874	0.0030	0.0417	0.064
0.917	-0.0073	0.0356	-0.189
0.952	-0.0161	0.0303	-0.505
0.991	-0.0261	0.0241	-1.072
1.027	-0.0356	0.0183	-1.996
1.065	-0.0458	0.0121	-4.042
1.097	-0.0545	0.0068	-8.745

Run: jb0863

Avg RPM: 5028

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.117	0.1303	0.0885	0.172
0.148	0.1286	0.0884	0.215
0.175	0.1267	0.0882	0.252
0.205	0.1252	0.0881	0.292
0.233	0.1233	0.0878	0.327
0.264	0.1214	0.0881	0.364
0.293	0.1186	0.0879	0.395
0.322	0.1158	0.0878	0.425
0.347	0.1138	0.0880	0.449
0.378	0.1104	0.0878	0.475
0.409	0.1063	0.0875	0.498
0.433	0.1035	0.0874	0.513

0.464	0.0995	0.0873	0.529
0.490	0.0957	0.0869	0.539
0.520	0.0911	0.0863	0.548
0.554	0.0848	0.0852	0.552
0.587	0.0788	0.0837	0.553
Run: jb0864			
Avg RPM: 5009			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.490	0.0955	0.0867	0.540
0.524	0.0899	0.0859	0.548
0.552	0.0853	0.0851	0.553
0.579	0.0800	0.0838	0.553
0.608	0.0742	0.0819	0.551
0.641	0.0665	0.0787	0.541
0.666	0.0595	0.0752	0.527
0.699	0.0509	0.0707	0.503
0.721	0.0446	0.0669	0.480
0.762	0.0337	0.0605	0.425
0.784	0.0282	0.0573	0.387
0.819	0.0189	0.0516	0.299
0.850	0.0109	0.0469	0.198
0.877	0.0039	0.0426	0.081
0.908	-0.0038	0.0380	-0.090
0.937	-0.0108	0.0338	-0.300
0.965	-0.0183	0.0291	-0.608
0.993	-0.0256	0.0245	-1.040
1.027	-0.0346	0.0187	-1.900
1.052	-0.0418	0.0143	-3.082
1.083	-0.0501	0.0094	-5.794

Run: jb0865
Avg RPM: 5989

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.096	0.1330	0.0888	0.144
0.124	0.1319	0.0890	0.184
0.150	0.1301	0.0887	0.220
0.172	0.1290	0.0890	0.250
0.193	0.1276	0.0888	0.278
0.220	0.1262	0.0889	0.312
0.245	0.1241	0.0887	0.342
0.271	0.1224	0.0890	0.372
0.294	0.1207	0.0892	0.398
0.320	0.1178	0.0888	0.424
0.343	0.1157	0.0890	0.447
0.368	0.1127	0.0887	0.468
0.387	0.1106	0.0886	0.483
0.413	0.1078	0.0886	0.502
0.437	0.1051	0.0887	0.518
0.461	0.1019	0.0885	0.531
0.484	0.0984	0.0882	0.541

Run: jb0866
Avg RPM: 6013

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.414	0.1078	0.0887	0.503
0.440	0.1045	0.0886	0.519
0.465	0.1013	0.0885	0.532
0.488	0.0975	0.0879	0.541
0.511	0.0941	0.0875	0.550
0.531	0.0904	0.0867	0.554
0.554	0.0869	0.0863	0.558
0.588	0.0811	0.0850	0.560
0.606	0.0776	0.0841	0.559
0.629	0.0728	0.0826	0.555
0.651	0.0678	0.0805	0.549
0.683	0.0598	0.0768	0.532
0.704	0.0542	0.0738	0.517
0.733	0.0465	0.0695	0.490
0.751	0.0415	0.0666	0.469
0.780	0.0335	0.0618	0.422
0.802	0.0274	0.0582	0.378
0.829	0.0201	0.0536	0.310
0.850	0.0144	0.0502	0.244
0.876	0.0071	0.0455	0.137
0.898	0.0013	0.0418	0.028
0.925	-0.0060	0.0370	-0.151
0.944	-0.0111	0.0339	-0.310
0.972	-0.0189	0.0289	-0.635

Run: kt0960
Avg RPM: 5014

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.126	0.0768	0.0387	0.251
0.157	0.0735	0.0385	0.300
0.189	0.0698	0.0382	0.346
0.219	0.0656	0.0376	0.383
0.256	0.0600	0.0367	0.419
0.284	0.0551	0.0355	0.441
0.320	0.0492	0.0340	0.463
0.349	0.0444	0.0328	0.472
0.384	0.0380	0.0308	0.473
0.411	0.0323	0.0288	0.461
0.442	0.0255	0.0262	0.430
0.479	0.0181	0.0231	0.375
0.498	0.0143	0.0215	0.331
0.537	0.0062	0.0179	0.186
0.569	-0.0009	0.0147	-0.033
0.599	-0.0075	0.0116	-0.386
0.631	-0.0147	0.0081	-1.149

Run: kt0961

Avg RPM: 6031

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.105	0.0801	0.0390	0.217
0.131	0.0775	0.0387	0.263
0.158	0.0745	0.0385	0.306
0.185	0.0713	0.0382	0.345
0.210	0.0681	0.0378	0.378
0.237	0.0644	0.0373	0.408
0.263	0.0602	0.0366	0.433
0.289	0.0558	0.0357	0.453
0.317	0.0508	0.0343	0.469
0.339	0.0471	0.0333	0.479
0.368	0.0421	0.0319	0.485
0.398	0.0366	0.0302	0.482
0.421	0.0320	0.0286	0.471
0.450	0.0253	0.0260	0.439
0.473	0.0204	0.0239	0.403
0.499	0.0149	0.0216	0.345
0.521	0.0103	0.0195	0.275

Run: kt0962

Avg RPM: 6006

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.444	0.0264	0.0264	0.445
0.474	0.0200	0.0237	0.400
0.495	0.0156	0.0218	0.355
0.526	0.0091	0.0190	0.252
0.547	0.0047	0.0170	0.152
0.582	-0.0030	0.0135	-0.132
0.599	-0.0069	0.0117	-0.356
0.632	-0.0146	0.0078	-1.181

Run: kt0963	0.479	0.0230	0.0322	0.342	0.532	0.0165	0.0290	0.304
Avg RPM: 6922	0.527	0.0126	0.0273	0.243	0.562	0.0090	0.0253	0.200
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.563	0.0046	0.0234	0.112
0.092	0.0827	0.0394	0.193		0.604	-0.0049	0.0186	-0.158
0.116	0.0802	0.0392	0.237		0.643	-0.0139	0.0137	-0.653
0.138	0.0779	0.0390	0.275		0.689	-0.0245	0.0082	-2.052
0.158	0.0757	0.0388	0.308					
0.183	0.0727	0.0385	0.346					
0.207	0.0697	0.0382	0.377					
0.229	0.0667	0.0378	0.403					
0.253	0.0633	0.0373	0.430					
0.273	0.0601	0.0368	0.446					
0.302	0.0551	0.0356	0.468					
0.320	0.0514	0.0345	0.476					
0.342	0.0478	0.0336	0.486					
0.365	0.0436	0.0324	0.492					
0.386	0.0397	0.0312	0.492					
0.407	0.0360	0.0300	0.488					
0.435	0.0303	0.0280	0.472					
0.457	0.0254	0.0261	0.445					
Run: kt0964	0.446	0.0350	0.0372	0.419	0.305	0.0723	0.0499	0.443
Avg RPM: 6915	0.478	0.0271	0.0338	0.383	0.328	0.0677	0.0486	0.457
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.510	0.0192	0.0301	0.325
0.388	0.0394	0.0310	0.494		0.543	0.0112	0.0263	0.231
0.411	0.0349	0.0294	0.489		0.574	0.0037	0.0225	0.095
0.432	0.0307	0.0279	0.475		0.603	-0.0039	0.0186	-0.125
0.456	0.0252	0.0258	0.445		0.638	-0.0121	0.0144	-0.537
0.482	0.0195	0.0234	0.402					
0.503	0.0149	0.0214	0.350					
0.529	0.0093	0.0189	0.259					
0.549	0.0049	0.0170	0.159					
0.570	0.0004	0.0150	0.015					
0.597	-0.0056	0.0121	-0.279					
0.618	-0.0103	0.0098	-0.646					
0.643	-0.0160	0.0069	-1.490					
0.661	-0.0203	0.0047	-2.854					
<hr/>								
Graupner	0.291	0.0729	0.0496	0.427	0.539	0.0172	0.0294	0.316
Super Nylon	0.317	0.0679	0.0486	0.443	0.562	0.0109	0.0265	0.231
9×5	0.346	0.0620	0.0469	0.458	0.587	0.0042	0.0229	0.107
Figs. 5.248–5.250	0.375	0.0560	0.0453	0.464	0.613	-0.0027	0.0194	-0.086
Run: rd0930	0.399	0.0503	0.0432	0.465	0.633	-0.0080	0.0166	-0.303
Avg RPM: 4007	0.421	0.0450	0.0412	0.460	0.658	-0.0152	0.0128	-0.782
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.451	0.0374	0.0382	0.442
0.157	0.0876	0.0525	0.263		0.475	0.0319	0.0360	0.421
0.197	0.0817	0.0516	0.311		0.505	0.0236	0.0322	0.371
0.243	0.0733	0.0501	0.356		0.532	0.0168	0.0290	0.308
0.275	0.0676	0.0488	0.382					
0.325	0.0575	0.0457	0.409					
0.358	0.0506	0.0434	0.417					
0.407	0.0391	0.0392	0.406					
0.433	0.0334	0.0367	0.394					
Run: rd0931	0.449	0.0377	0.0385	0.440	0.505	0.0234	0.0321	0.367
Avg RPM: 5010	0.476	0.0310	0.0356	0.414				
Run: rd0931	0.532	0.0165	0.0290	0.304				
Avg RPM: 6805	0.562	0.0090	0.0253	0.200				
Run: rd0934	0.583	0.0039	0.0227	0.100				
Avg RPM: 6805	0.610	-0.0034	0.0190	-0.109				
Run: rd0934	0.645	-0.0131	0.0139	-0.607				
Avg RPM: 6805	0.668	-0.0190	0.0108	-1.180				
Run: rd0934	0.691	-0.0247	0.0077	-2.219				
Avg RPM: 6805								
Run: rd0932	0.093	0.1008	0.0518	0.180				
Avg RPM: 6032	0.115	0.0987	0.0518	0.218				
Run: rd0932	0.142	0.0953	0.0520	0.260				
Avg RPM: 6032	0.165	0.0926	0.0520	0.294				
Run: rd0932	0.190	0.0898	0.0521	0.328				
Avg RPM: 6032	0.213	0.0864	0.0517	0.357				
Run: rd0932	0.238	0.0832	0.0515	0.384				
Avg RPM: 6032	0.262	0.0792	0.0508	0.408				
Run: rd0932	0.282	0.0764	0.0507	0.424				
Avg RPM: 6032	0.305	0.0723	0.0499	0.443				
Run: rd0935	0.328	0.0677	0.0486	0.457				
Avg RPM: 6811	0.349	0.0633	0.0474	0.467				
Run: rd0935	0.372	0.0585	0.0460	0.474				
Avg RPM: 6811	0.396	0.0537	0.0444	0.479				
Run: rd0935	0.421	0.0473	0.0421	0.473				
Avg RPM: 6811	0.444	0.0419	0.0401	0.464				
Run: rd0935	0.466	0.0366	0.0380	0.449				
Avg RPM: 6811	0.399	0.0524	0.0441	0.474				
Run: rd0936	0.423	0.0469	0.0422	0.470				
Avg RPM: 6811	0.443	0.0419	0.0403	0.461				
Run: rd0936	0.465	0.0363	0.0379	0.446				
Avg RPM: 6811	0.492	0.0295	0.0350	0.414				
Run: rd0936	0.513	0.0239	0.0325	0.377				
Avg RPM: 6811	0.539	0.0172	0.0294	0.316				
Run: rd0936	0.562	0.0109	0.0265	0.231				
Avg RPM: 6811	0.587	0.0042	0.0229	0.107				
Run: rd0937	0.613	-0.0027	0.0194	-0.086				
Avg RPM: 6811	0.633	-0.0080	0.0166	-0.303				
Run: rd0937	0.658	-0.0152	0.0128	-0.782				
Avg RPM: 6811	0.683	-0.0218	0.0093	-1.594				
Run: rd0937	0.704	-0.0272	0.0063	-3.038				
Avg RPM: 6811								
Run: rd0933	0.093	0.1008	0.0518	0.180				
Avg RPM: 6010	0.115	0.0987	0.0518	0.218				
Run: rd0933	0.142	0.0953	0.0520	0.260				
Avg RPM: 6010	0.165	0.0926	0.0520	0.294				
Run: rd0933	0.190	0.0898	0.0521	0.328				
Avg RPM: 6010	0.213	0.0864	0.0517	0.357				
Run: rd0933	0.238	0.0832	0.0515	0.384				
Avg RPM: 6010	0.262	0.0792	0.0508	0.408				
Run: rd0933	0.282	0.0764	0.0507	0.424				
Avg RPM: 6010	0.305	0.0723	0.0499	0.443				
Run: rd0933	0.328	0.0677	0.0486	0.457				
Avg RPM: 6010	0.349	0.0633	0.0474	0.467				
Run: rd0933	0.372	0.0585	0.0460	0.474				
Avg RPM: 6010	0.396	0.0537	0.0444	0.479				
Run: rd0933	0.421	0.0473	0.0421	0.473				
Avg RPM: 6010	0.444	0.0419	0.0401	0.464				
Run: rd0933	0.466	0.0366	0.0380	0.449				
Avg RPM: 6010	0.482	0.0334	0.0367	0.394				

Graupner
Super Nylon
9×7
Figs. 5.254–5.256

Run: rd0937

Avg RPM: 4011

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.162	0.1329	0.0873	0.247
0.199	0.1288	0.0881	0.291
0.242	0.1235	0.0889	0.336
0.279	0.1185	0.0893	0.370
0.323	0.1125	0.0896	0.405
0.361	0.1063	0.0892	0.430
0.398	0.1008	0.0888	0.452
0.438	0.0931	0.0873	0.467
0.475	0.0861	0.0854	0.478
0.526	0.0732	0.0804	0.479
0.552	0.0673	0.0782	0.475
0.598	0.0555	0.0725	0.458
0.637	0.0458	0.0674	0.433
0.680	0.0352	0.0616	0.389
0.707	0.0284	0.0574	0.350
0.759	0.0147	0.0488	0.229
0.804	0.0027	0.0406	0.054

Run: rd0938

Avg RPM: 3998

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.678	0.0357	0.0617	0.392
0.723	0.0243	0.0548	0.320
0.757	0.0152	0.0489	0.236
0.798	0.0045	0.0417	0.087
0.835	-0.0060	0.0343	-0.147
0.876	-0.0171	0.0263	-0.568
0.926	-0.0308	0.0164	-1.743
0.963	-0.0401	0.0094	-4.110

Run: rd0939

Avg RPM: 4988

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.127	0.1384	0.0863	0.203
0.158	0.1354	0.0871	0.246
0.191	0.1323	0.0882	0.287
0.225	0.1283	0.0889	0.325
0.260	0.1239	0.0895	0.360
0.292	0.1198	0.0899	0.389
0.324	0.1150	0.0899	0.415
0.357	0.1105	0.0900	0.438
0.386	0.1060	0.0897	0.456
0.417	0.1009	0.0892	0.472
0.448	0.0956	0.0883	0.485
0.484	0.0886	0.0866	0.495
0.512	0.0825	0.0847	0.498

0.536	0.0770	0.0826	0.500	0.665	0.0493	0.0703	0.467
0.573	0.0679	0.0789	0.492	0.685	0.0443	0.0677	0.448
0.601	0.0613	0.0759	0.485	0.722	0.0339	0.0616	0.397
0.638	0.0511	0.0707	0.461	0.744	0.0281	0.0580	0.361
				0.769	0.0212	0.0537	0.303

Run: rd0940			
Avg RPM: 5005			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.535	0.0769	0.0825	0.499
0.573	0.0678	0.0787	0.493
0.600	0.0609	0.0755	0.484
0.637	0.0515	0.0708	0.463
0.663	0.0452	0.0674	0.444
0.701	0.0352	0.0618	0.399
0.732	0.0268	0.0567	0.346
0.763	0.0179	0.0511	0.267
0.797	0.0087	0.0450	0.154
0.829	-0.0001	0.0390	-0.001
0.866	-0.0108	0.0313	-0.300
0.897	-0.0198	0.0247	-0.718
0.930	-0.0293	0.0179	-1.521
0.963	-0.0385	0.0109	-3.409

Run: rd0943			
Avg RPM: 6573			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.093	0.1413	0.0841	0.157
0.123	0.1393	0.0849	0.201
0.146	0.1377	0.0859	0.234
0.170	0.1359	0.0870	0.265
0.192	0.1338	0.0876	0.294
0.218	0.1311	0.0883	0.324
0.244	0.1281	0.0889	0.352
0.269	0.1249	0.0892	0.377
0.292	0.1219	0.0895	0.398

Run: rd0941			
Avg RPM: 6001			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.108	0.1404	0.0849	0.178
0.132	0.1388	0.0860	0.214
0.161	0.1363	0.0869	0.252
0.187	0.1338	0.0877	0.285
0.212	0.1312	0.0883	0.315
0.242	0.1275	0.0889	0.347
0.269	0.1245	0.0896	0.374
0.295	0.1209	0.0897	0.397
0.323	0.1172	0.0898	0.421
0.349	0.1133	0.0899	0.440
0.372	0.1102	0.0900	0.455
0.399	0.1058	0.0896	0.471
0.426	0.1013	0.0890	0.484
0.452	0.0968	0.0883	0.496
0.478	0.0922	0.0874	0.504
0.504	0.0874	0.0864	0.510
0.529	0.0822	0.0848	0.512

Run: rd0944			
Avg RPM: 6606			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.413	0.1041	0.0894	0.481
0.440	0.0995	0.0888	0.493
0.464	0.0954	0.0880	0.502
0.484	0.0916	0.0872	0.509
0.507	0.0875	0.0862	0.514
0.530	0.0828	0.0850	0.517
0.553	0.0781	0.0835	0.517
0.581	0.0722	0.0813	0.515
0.603	0.0671	0.0793	0.510
0.630	0.0605	0.0762	0.500
0.653	0.0555	0.0741	0.489
0.680	0.0475	0.0696	0.464
0.703	0.0420	0.0669	0.442
0.728	0.0352	0.0628	0.408
0.749	0.0292	0.0591	0.370
0.770	0.0234	0.0554	0.324
0.799	0.0150	0.0501	0.239
0.615	0.0614	0.0761	0.497
0.641	0.0555	0.0736	0.484

0.820	0.0091	0.0460	0.161
0.849	0.0003	0.0401	0.007
0.863	-0.0037	0.0372	-0.086
0.892	-0.0125	0.0312	-0.357
0.919	-0.0209	0.0250	-0.771
0.946	-0.0286	0.0194	-1.396

Graupner
Super Nylon
10×6
Figs. 5.260–5.262

Run: rd0780			
Avg RPM: 4003			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.147	0.0984	0.0544	0.266
0.183	0.0929	0.0541	0.315
0.218	0.0859	0.0528	0.354
0.259	0.0789	0.0516	0.396
0.294	0.0718	0.0496	0.425
0.333	0.0643	0.0478	0.449
0.367	0.0561	0.0449	0.459
0.404	0.0478	0.0418	0.462
0.440	0.0400	0.0386	0.456
0.483	0.0312	0.0349	0.433
0.518	0.0237	0.0314	0.392
0.556	0.0166	0.0281	0.328
0.592	0.0094	0.0245	0.228
0.628	0.0016	0.0205	0.050
0.665	-0.0065	0.0156	-0.278
0.701	-0.0148	0.0106	-0.982

Run: rd0781			
Avg RPM: 5012			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.117	0.1033	0.0537	0.224
0.147	0.1000	0.0540	0.273
0.176	0.0961	0.0539	0.314
0.205	0.0923	0.0540	0.350
0.234	0.0872	0.0533	0.383
0.264	0.0819	0.0524	0.412
0.295	0.0755	0.0509	0.438
0.322	0.0703	0.0496	0.456
0.351	0.0638	0.0476	0.471
0.382	0.0572	0.0454	0.481
0.413	0.0493	0.0424	0.480
0.439	0.0433	0.0400	0.476
0.470	0.0359	0.0367	0.459
0.498	0.0298	0.0340	0.436
0.527	0.0232	0.0308	0.396
0.556	0.0169	0.0277	0.339
0.586	0.0108	0.0246	0.256

Run: rd0782			
Avg RPM: 5001			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.498	0.0294	0.0322	0.456
0.533	0.0216	0.0284	0.406
0.551	0.0179	0.0266	0.370
0.586	0.0107	0.0228	0.274
0.620	0.0033	0.0189	0.108
0.644	-0.0019	0.0159	-0.079
0.674	-0.0086	0.0119	-0.487
0.704	-0.0156	0.0077	-1.423
Run: rd0785			
Avg RPM: 6612			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.089	0.1072	0.0529	0.181
0.111	0.1053	0.0533	0.220
0.134	0.1029	0.0535	0.258
0.155	0.1008	0.0538	0.290
0.177	0.0981	0.0539	0.322
0.201	0.0948	0.0537	0.355
0.223	0.0919	0.0537	0.382
0.246	0.0882	0.0533	0.407
0.268	0.0848	0.0530	0.430
0.290	0.0810	0.0524	0.448
0.309	0.0771	0.0514	0.463
0.330	0.0729	0.0503	0.478
0.354	0.0677	0.0489	0.490
0.376	0.0635	0.0478	0.500
0.396	0.0587	0.0462	0.504
0.422	0.0519	0.0435	0.502
0.443	0.0465	0.0414	0.498
Run: rd0783			
Avg RPM: 6030			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.098	0.1062	0.0534	0.196
0.125	0.1035	0.0536	0.241
0.144	0.1015	0.0538	0.272
0.170	0.0986	0.0540	0.311
0.195	0.0953	0.0540	0.344
0.220	0.0918	0.0538	0.375
0.244	0.0878	0.0534	0.402
0.269	0.0836	0.0528	0.426
0.296	0.0785	0.0518	0.449
0.318	0.0740	0.0507	0.464
0.340	0.0692	0.0494	0.477
0.364	0.0643	0.0480	0.487
0.387	0.0590	0.0462	0.495
0.414	0.0522	0.0436	0.496
0.438	0.0464	0.0413	0.492
0.465	0.0398	0.0385	0.480
0.484	0.0352	0.0364	0.467
Run: rd0786			
Avg RPM: 6613			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.375	0.0628	0.0473	0.498
0.396	0.0581	0.0458	0.503
0.422	0.0520	0.0435	0.504
0.443	0.0468	0.0415	0.499
0.463	0.0417	0.0393	0.491
0.488	0.0355	0.0365	0.474
0.507	0.0307	0.0343	0.453
0.536	0.0240	0.0310	0.415
0.555	0.0196	0.0289	0.377
0.580	0.0134	0.0256	0.304
0.598	0.0089	0.0232	0.230
0.624	0.0030	0.0198	0.093
0.647	-0.0021	0.0169	-0.081
0.669	-0.0075	0.0136	-0.369
0.692	-0.0126	0.0106	-0.823
0.709	-0.0166	0.0083	-1.420
Graupner			
Super Nylon			
10×7			
Figs. 5.266–5.268			
Run: rd0788			
Avg RPM: 3008			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.194	0.1095	0.0677	0.314
0.245	0.1039	0.0678	0.375
0.291	0.0980	0.0679	0.420
0.346	0.0896	0.0672	0.462
0.392	0.0791	0.0634	0.490

0.436	0.0673	0.0574	0.511	Run: pg0791	0.731	0.0022	0.0254	0.064			
0.489	0.0537	0.0533	0.492	Avg RPM: 4999	0.761	-0.0045	0.0212	-0.162			
0.531	0.0439	0.0473	0.493	J	C_T	C_P	η	0.779	-0.0088	0.0184	-0.370
0.584	0.0328	0.0428	0.448	0.493	0.0629	0.0596	0.521	0.809	-0.0160	0.0136	-0.948
0.636	0.0224	0.0376	0.378	0.525	0.0537	0.0552	0.511	0.835	-0.0222	0.0094	-1.972
0.693	0.0101	0.0309	0.228	0.557	0.0442	0.0503	0.490				
0.740	-0.0002	0.0246	-0.006	0.586	0.0364	0.0460	0.463				
0.792	-0.0118	0.0175	-0.534	0.615	0.0286	0.0416	0.424				
0.839	-0.0226	0.0101	-1.864	0.644	0.0217	0.0375	0.372				
				0.673	0.0150	0.0335	0.300				
Run: rd0789				0.709	0.0069	0.0287	0.169				
				0.737	0.0007	0.0249	0.020				
				0.766	-0.0061	0.0205	-0.229				
Avg RPM: 4002				0.796	-0.0131	0.0161	-0.649				
				0.825	-0.0198	0.0114	-1.440				
				0.853	-0.0269	0.0065	-3.511				
				Run: pg0792							
				Avg RPM: 6032							
					J	C_T	C_P	η			
					0.098	0.1230	0.0668	0.181			
					0.125	0.1206	0.0671	0.225			
					0.145	0.1185	0.0672	0.256			
					0.171	0.1160	0.0675	0.293			
					0.193	0.1137	0.0677	0.325			
					0.221	0.1103	0.0679	0.359			
					0.244	0.1076	0.0680	0.386			
					0.266	0.1043	0.0676	0.411			
					0.291	0.1011	0.0674	0.436			
					0.319	0.0969	0.0670	0.461			
					0.342	0.0940	0.0670	0.479			
					0.363	0.0910	0.0668	0.494			
					0.387	0.0873	0.0665	0.509			
Run: pg0790					0.414	0.0832	0.0660	0.523			
					0.439	0.0792	0.0653	0.532			
Avg RPM: 5005					0.462	0.0746	0.0642	0.537			
					0.485	0.0692	0.0624	0.538			
				Run: pg0793							
				Avg RPM: 6018							
					J	C_T	C_P	η			
					0.414	0.0831	0.0658	0.523			
					0.439	0.0788	0.0651	0.532			
					0.463	0.0743	0.0640	0.537			
					0.485	0.0694	0.0625	0.538			
					0.512	0.0620	0.0594	0.534			
					0.534	0.0557	0.0564	0.528			
					0.556	0.0493	0.0532	0.515			
					0.590	0.0391	0.0478	0.483			
					0.610	0.0333	0.0444	0.457			
					0.633	0.0270	0.0408	0.419			
					0.660	0.0199	0.0365	0.360			
					0.682	0.0143	0.0330	0.295			
					0.710	0.0074	0.0286	0.183			

0.260	0.0743	0.0417	0.463	0.522	0.0146	0.0203	0.375	Run: jb0660				
0.290	0.0671	0.0400	0.488	0.538	0.0105	0.0183	0.308	Avg RPM: 4002				
0.314	0.0614	0.0384	0.502	0.562	0.0050	0.0157	0.179	J				
0.344	0.0535	0.0357	0.515	0.586	-0.0006	0.0129	-0.027	C_T				
0.365	0.0484	0.0340	0.521	0.614	-0.0075	0.0093	-0.497	C_P				
0.396	0.0413	0.0314	0.521	0.634	-0.0118	0.0070	-1.065	η				
0.419	0.0362	0.0295	0.515	<hr/>				<hr/>				
0.448	0.0299	0.0269	0.496	Graupner				Run: jb0660				
0.464	0.0262	0.0255	0.478	Super Nylon				Avg RPM: 4002				
0.495	0.0188	0.0221	0.420	11×8				J				
0.521	0.0134	0.0198	0.352	Figs. 5.278–5.280				0.553 0.0358 0.0388 0.510				
<hr/>								0.584 0.0282 0.0349 0.473				
								0.617 0.0212 0.0312 0.419				
								0.650 0.0140 0.0273 0.332				
								0.686 0.0064 0.0232 0.190				
								0.711 0.0009 0.0200 0.033				
								0.747 -0.0070 0.0152 -0.347				
								0.780 -0.0146 0.0105 -1.085				
<hr/>				<hr/>				<hr/>				
Run: rd0669				Run: jb0658				Run: jb0661				
Avg RPM: 4995				Avg RPM: 3004				Avg RPM: 5020				
J				J				J				
C_T				C_T				C_T				
C_P				C_P				C_P				
η				η				η				
0.444	0.0306	0.0272	0.499	0.174	0.1080	0.0592	0.316	0.106	0.1182	0.0590	0.212	
0.470	0.0250	0.0249	0.472	0.216	0.1032	0.0593	0.376	0.132	0.1151	0.0589	0.258	
0.497	0.0185	0.0221	0.417	0.262	0.0975	0.0592	0.431	0.156	0.1128	0.0594	0.296	
0.522	0.0130	0.0196	0.347	0.303	0.0920	0.0592	0.472	0.179	0.1098	0.0591	0.333	
0.548	0.0075	0.0171	0.241	0.349	0.0838	0.0580	0.505	0.206	0.1065	0.0590	0.372	
0.576	0.0015	0.0141	0.062	0.389	0.0742	0.0554	0.521	0.236	0.1031	0.0592	0.411	
0.601	-0.0044	0.0111	-0.239	0.434	0.0612	0.0501	0.530	0.262	0.1000	0.0591	0.443	
0.626	-0.0102	0.0079	-0.810	0.484	0.0487	0.0446	0.527	0.288	0.0963	0.0588	0.472	
0.511	0.0428	0.0420	0.520	0.511	0.0428	0.0420	0.520	0.315	0.0928	0.0587	0.498	
0.562	0.0318	0.0367	0.487	0.608	0.0227	0.0323	0.428	0.341	0.0897	0.0587	0.521	
0.608	0.0227	0.0323	0.428	0.658	0.0126	0.0269	0.309	0.366	0.0854	0.0580	0.538	
0.699	0.0039	0.0222	0.123	0.737	-0.0041	0.0173	-0.175	0.388	0.0821	0.0576	0.553	
0.737	-0.0041	0.0173	-0.175	0.785	-0.0150	0.0105	-1.120	0.413	0.0772	0.0565	0.565	
0.196	0.0871	0.0433	0.393	Run: jb0659	<hr/>				0.442	0.0710	0.0549	0.572
0.217	0.0839	0.0431	0.423	Avg RPM: 4014	<hr/>				0.465	0.0651	0.0527	0.574
0.240	0.0802	0.0427	0.452	J	C_T	C_P	η	Run: jb0662	<hr/>			
0.262	0.0763	0.0421	0.476	0.128	0.1145	0.0592	0.249	Avg RPM: 5009	<hr/>			
0.283	0.0722	0.0413	0.495	0.162	0.1105	0.0591	0.304	J	<hr/>			
0.306	0.0674	0.0403	0.512	0.197	0.1069	0.0593	0.355	C_T	<hr/>			
0.328	0.0620	0.0387	0.526	0.226	0.1036	0.0593	0.394	C_P	<hr/>			
0.348	0.0567	0.0371	0.533	0.259	0.0992	0.0590	0.435	η	<hr/>			
0.368	0.0519	0.0354	0.538	0.293	0.0946	0.0588	0.472	0.441	0.0708	0.0545	0.572	
0.392	0.0455	0.0331	0.538	0.327	0.0900	0.0584	0.503	0.465	0.0649	0.0524	0.576	
0.412	0.0407	0.0314	0.535	0.356	0.0855	0.0580	0.525	0.493	0.0567	0.0490	0.571	
0.436	0.0350	0.0292	0.523	0.390	0.0796	0.0571	0.543	0.515	0.0501	0.0460	0.561	
0.459	0.0622	0.0512	0.557	0.423	0.0724	0.0551	0.555	0.549	0.0407	0.0415	0.539	
0.486	0.0540	0.0477	0.551	0.459	0.0622	0.0512	0.557	0.570	0.0352	0.0387	0.518	
0.519	0.0449	0.0434	0.538	0.519	0.0449	0.0434	0.538	0.598	0.0282	0.0350	0.483	
0.553	0.0361	0.0390	0.512	0.587	0.0282	0.0350	0.473	0.627	0.0210	0.0311	0.423	
0.587	0.0282	0.0350	0.473	0.616	0.0216	0.0316	0.422	0.654	0.0145	0.0275	0.344	
0.651	0.0141	0.0274	0.333	0.732	-0.0033	0.0171	-0.143	0.679	0.0086	0.0241	0.244	
0.434	0.0349	0.0290	0.524	0.753	-0.0083	0.0140	-0.449	0.707	0.0023	0.0204	0.080	
0.455	0.0303	0.0272	0.506	0.785	-0.0155	0.0095	-1.285	0.735	0.0015	0.0180	0.065	
0.478	0.0247	0.0248	0.476	0.497	0.0203	0.0229	0.441	0.778	0.0055	0.0150	0.055	

GWS				
Direct Drive				
9×5				
Figs. 5.284–5.286				
<hr/>				
Run: jb0663				
Avg RPM: 5929				
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	
0.112	0.1182	0.0589	0.224	0.292
0.131	0.1163	0.0591	0.258	0.322
0.155	0.1136	0.0591	0.298	0.347
0.175	0.1112	0.0592	0.329	0.377
0.197	0.1090	0.0594	0.362	0.398
0.218	0.1064	0.0593	0.392	0.427
0.244	0.1029	0.0592	0.425	0.450
0.264	0.1005	0.0591	0.449	0.477
0.289	0.0972	0.0589	0.476	0.508
0.309	0.0946	0.0587	0.498	0.530
0.332	0.0913	0.0585	0.518	
0.351	0.0884	0.0581	0.534	
0.371	0.0853	0.0578	0.548	
0.393	0.0821	0.0574	0.561	
0.419	0.0782	0.0569	0.575	
0.443	0.0728	0.0554	0.582	
<hr/>				
Run: jb0664				
Avg RPM: 5919				
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	
0.374	0.0851	0.0578	0.550	
0.397	0.0811	0.0572	0.563	
0.420	0.0773	0.0567	0.573	
0.442	0.0730	0.0555	0.581	
0.463	0.0685	0.0542	0.585	
0.487	0.0620	0.0517	0.584	
0.503	0.0579	0.0500	0.583	
0.528	0.0504	0.0466	0.571	
0.550	0.0442	0.0436	0.557	
0.576	0.0367	0.0399	0.530	
0.593	0.0320	0.0374	0.507	
0.619	0.0251	0.0337	0.462	
0.637	0.0208	0.0312	0.424	
0.666	0.0133	0.0270	0.329	
0.682	0.0094	0.0247	0.260	
0.709	0.0025	0.0205	0.085	
0.725	-0.0012	0.0183	-0.046	
0.747	-0.0065	0.0150	-0.325	
0.772	-0.0123	0.0113	-0.841	
0.795	-0.0179	0.0078	-1.819	
<hr/>				
Run: jb1003				
Avg RPM: 4009				
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	
0.159	0.0746	0.0412	0.289	
0.196	0.0690	0.0400	0.337	
0.239	0.0618	0.0385	0.383	
0.276	0.0558	0.0369	0.416	
0.321	0.0475	0.0346	0.440	
0.358	0.0414	0.0331	0.447	
0.404	0.0337	0.0312	0.436	
0.437	0.0276	0.0294	0.410	
0.493	0.0164	0.0260	0.311	
0.516	0.0114	0.0242	0.242	
0.569	-0.0002	0.0203	-0.007	
0.602	-0.0080	0.0175	-0.276	
0.653	-0.0203	0.0128	-1.037	
0.676	-0.0260	0.0106	-1.663	
<hr/>				
Run: jb1006				
Avg RPM: 6008				
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	
0.456	0.0233	0.0275	0.387	
0.480	0.0188	0.0261	0.346	
0.509	0.0122	0.0238	0.260	
0.530	0.0073	0.0221	0.175	
0.562	0.0002	0.0197	0.005	
0.583	-0.0047	0.0179	-0.152	
0.613	-0.0121	0.0152	-0.487	
0.645	-0.0201	0.0123	-1.058	
0.673	-0.0275	0.0095	-1.942	
0.694	-0.0331	0.0074	-3.092	
<hr/>				
Run: jb1007				
Avg RPM: 6811				
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	
0.095	0.0933	0.0440	0.201	
0.122	0.0898	0.0439	0.250	
0.143	0.0864	0.0436	0.284	
0.168	0.0828	0.0433	0.322	
0.190	0.0788	0.0427	0.351	
0.215	0.0741	0.0419	0.381	
0.239	0.0695	0.0409	0.406	
0.261	0.0651	0.0398	0.427	
0.285	0.0602	0.0385	0.445	
0.305	0.0559	0.0374	0.456	
0.328	0.0513	0.0361	0.467	
0.355	0.0457	0.0344	0.471	
0.376	0.0412	0.0330	0.469	
0.399	0.0365	0.0316	0.461	
0.421	0.0318	0.0301	0.444	
0.448	0.0258	0.0283	0.408	
0.471	0.0205	0.0265	0.365	
<hr/>				
Run: jb1005				
Avg RPM: 6033				
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	
0.107	0.0904	0.0437	0.220	
0.135	0.0865	0.0436	0.268	
0.162	0.0820	0.0430	0.309	
0.187	0.0774	0.0422	0.342	
0.214	0.0722	0.0412	0.374	
0.242	0.0669	0.0401	0.403	
0.268	0.0620	0.0389	0.428	
<hr/>				
Run: jb1008				
Avg RPM: 6817				
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	
0.398	0.0367	0.0316	0.461	
0.423	0.0311	0.0299	0.440	
0.445	0.0264	0.0285	0.413	
0.468	0.0213	0.0267	0.372	
0.494	0.0152	0.0246	0.304	
0.517	0.0101	0.0229	0.227	

0.539	0.0050	0.0211	0.128
0.565	-0.0010	0.0190	-0.030
0.585	-0.0060	0.0172	-0.205
0.612	-0.0124	0.0148	-0.512
0.636	-0.0188	0.0126	-0.951
0.662	-0.0252	0.0102	-1.642
0.685	-0.0316	0.0079	-2.748

GWS
Direct Drive
10×6

Figs. 5.290–5.292

Run: jb0713

Avg RPM: 4008

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.144	0.0829	0.0415	0.288
0.179	0.0783	0.0418	0.336
0.217	0.0716	0.0409	0.379
0.254	0.0644	0.0394	0.416
0.288	0.0572	0.0373	0.441
0.326	0.0502	0.0353	0.465
0.358	0.0445	0.0334	0.476
0.397	0.0366	0.0307	0.473
0.433	0.0297	0.0283	0.455
0.469	0.0225	0.0256	0.411
0.511	0.0143	0.0226	0.323
0.547	0.0072	0.0199	0.199
0.577	0.0008	0.0174	0.026
0.612	-0.0066	0.0143	-0.280
0.652	-0.0155	0.0105	-0.966
0.686	-0.0233	0.0071	-2.253

Run: jb0714

Avg RPM: 5005

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.116	0.0860	0.0403	0.247
0.146	0.0835	0.0407	0.298
0.172	0.0807	0.0411	0.338
0.204	0.0765	0.0412	0.378
0.233	0.0718	0.0408	0.410
0.261	0.0666	0.0399	0.436
0.288	0.0613	0.0386	0.458
0.317	0.0551	0.0369	0.473
0.343	0.0497	0.0352	0.484
0.375	0.0431	0.0331	0.489
0.410	0.0357	0.0305	0.481
0.432	0.0312	0.0289	0.467
0.467	0.0241	0.0263	0.427
0.494	0.0184	0.0242	0.376
0.521	0.0128	0.0220	0.302
0.549	0.0067	0.0196	0.188
0.577	0.0007	0.0171	0.024

Run: jb0715

Avg RPM: 6036

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.096	0.0878	0.0400	0.211
0.122	0.0853	0.0401	0.261
0.145	0.0834	0.0401	0.300
0.168	0.0809	0.0403	0.338
0.193	0.0784	0.0405	0.373
0.218	0.0752	0.0405	0.405
0.241	0.0721	0.0404	0.430
0.265	0.0682	0.0400	0.452
0.291	0.0631	0.0390	0.471
0.315	0.0579	0.0376	0.485
0.334	0.0540	0.0364	0.495
0.362	0.0480	0.0346	0.503
0.381	0.0440	0.0333	0.503
0.408	0.0383	0.0313	0.499
0.430	0.0334	0.0296	0.484
0.457	0.0273	0.0275	0.454
0.478	0.0226	0.0257	0.420

Run: jb0716

Avg RPM: 6708

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.366	0.0486	0.0349	0.509
0.390	0.0432	0.0332	0.508
0.407	0.0396	0.0320	0.504
0.431	0.0339	0.0299	0.489
0.451	0.0295	0.0284	0.468
0.471	0.0249	0.0267	0.440
0.495	0.0191	0.0244	0.387
0.515	0.0147	0.0227	0.334
0.542	0.0084	0.0200	0.226
0.560	0.0039	0.0182	0.121
0.585	-0.0019	0.0157	-0.071
0.603	-0.0063	0.0137	-0.277
0.626	-0.0121	0.0112	-0.673
0.650	-0.0177	0.0088	-1.303
0.669	-0.0225	0.0068	-2.212

GWS
Direct Drive
11×7

Figs. 5.296–5.298

Run: jb0571

Avg RPM: 3000

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.176	0.0848	0.0430	0.346
0.216	0.0764	0.0413	0.400
0.265	0.0666	0.0387	0.456
0.301	0.0600	0.0369	0.489
0.357	0.0490	0.0334	0.523
0.393	0.0424	0.0312	0.534
0.445	0.0327	0.0279	0.522
0.478	0.0266	0.0259	0.492

Run: pg0717

Avg RPM: 6706

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.085	0.0893	0.0402	0.188
0.107	0.0871	0.0400	0.233
0.132	0.0851	0.0403	0.279
0.152	0.0831	0.0402	0.314
0.171	0.0809	0.0402	0.344
0.196	0.0783	0.0403	0.381
0.217	0.0755	0.0402	0.409
0.238	0.0733	0.0403	0.432
0.261	0.0700	0.0402	0.454
0.280	0.0661	0.0395	0.470
0.305	0.0613	0.0384	0.487
0.327	0.0569	0.0373	0.499
0.347	0.0533	0.0364	0.508
0.368	0.0483	0.0348	0.511

Run: jb0572

Avg RPM: 4001

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.130	0.0931	0.0423	0.287
0.163	0.0893	0.0425	0.344
0.199	0.0842	0.0423	0.397

Run: jb0575				Run: jb0575			
Avg RPM: 6010				Avg RPM: 6010			
J	C_T	C_P	η	J	C_T	C_P	η
0.232	0.0785	0.0416	0.438	0.087	0.0996	0.0416	0.208
0.265	0.0720	0.0403	0.474	0.108	0.0972	0.0415	0.252
0.299	0.0644	0.0382	0.504	0.128	0.0951	0.0417	0.293
0.334	0.0568	0.0359	0.528	0.154	0.0922	0.0418	0.341
0.364	0.0508	0.0341	0.542	0.174	0.0902	0.0419	0.374
0.398	0.0437	0.0316	0.551	0.197	0.0864	0.0415	0.410
0.432	0.0366	0.0291	0.543	0.220	0.0833	0.0413	0.443
0.462	0.0304	0.0269	0.523	0.242	0.0797	0.0409	0.472
0.497	0.0230	0.0243	0.471	0.264	0.0762	0.0405	0.498
0.530	0.0158	0.0216	0.388	0.286	0.0726	0.0399	0.522
0.557	0.0101	0.0194	0.289	0.307	0.0685	0.0390	0.540
0.590	0.0027	0.0165	0.098	0.331	0.0641	0.0380	0.558
0.630	-0.0063	0.0129	-0.309	0.352	0.0597	0.0368	0.571
0.653	-0.0118	0.0106	-0.727	0.370	0.0562	0.0359	0.580
Run: jb0573				0.392	0.0504	0.0340	0.582
Avg RPM: 5003				0.415	0.0454	0.0323	0.582
J	C_T	C_P	η	0.436	0.0400	0.0305	0.572
0.108	0.0965	0.0418	0.248	Run: jb0576			
0.130	0.0940	0.0420	0.292	Avg RPM: 5997			
0.159	0.0910	0.0422	0.343	J	C_T	C_P	η
0.185	0.0874	0.0420	0.384	0.370	0.0554	0.0356	0.575
0.210	0.0838	0.0419	0.420	0.392	0.0507	0.0342	0.581
0.236	0.0799	0.0415	0.455	0.415	0.0447	0.0321	0.578
0.264	0.0749	0.0408	0.485	0.435	0.0400	0.0305	0.571
0.290	0.0697	0.0395	0.512	0.459	0.0346	0.0287	0.554
0.315	0.0649	0.0385	0.531	0.479	0.0298	0.0269	0.530
0.340	0.0592	0.0368	0.547	0.502	0.0243	0.0250	0.488
0.372	0.0523	0.0347	0.561	0.524	0.0191	0.0229	0.437
0.397	0.0467	0.0329	0.564	0.550	0.0126	0.0203	0.340
0.421	0.0413	0.0310	0.561	0.572	0.0071	0.0181	0.224
0.447	0.0356	0.0290	0.548	0.594	0.0014	0.0157	0.055
0.471	0.0302	0.0270	0.526	0.613	-0.0038	0.0135	-0.172
0.498	0.0241	0.0248	0.482	0.638	-0.0101	0.0109	-0.594
0.523	0.0182	0.0226	0.421	0.657	-0.0153	0.0087	-1.154
Run: jb0574				0.681	-0.0215	0.0062	-2.352
Avg RPM: 4999				0.681	-0.0215	0.0062	-2.356
J	C_T	C_P	η	0.681	-0.0215	0.0062	-2.356
0.446	0.0355	0.0290	0.547	0.681	-0.0215	0.0062	-2.356
0.472	0.0297	0.0269	0.522	0.681	-0.0215	0.0062	-2.356
0.497	0.0241	0.0249	0.481	0.681	-0.0215	0.0062	-2.356
0.524	0.0180	0.0226	0.418	0.681	-0.0215	0.0062	-2.356
0.554	0.0108	0.0197	0.304	Run: kt0967			
0.581	0.0044	0.0171	0.150	Avg RPM: 5016			
0.606	-0.0015	0.0147	-0.061	J	C_T	C_P	η
0.629	-0.0071	0.0124	-0.358	0.128	0.0976	0.0523	0.238
0.660	-0.0149	0.0092	-1.071	0.159	0.0921	0.0512	0.285
0.686	-0.0213	0.0066	-2.209	0.190	0.0864	0.0501	0.328
0.687	-0.0213	0.0066	-2.218	0.226	0.0792	0.0485	0.369
0.687	-0.0213	0.0066	-2.218	0.256	0.0734	0.0473	0.398
0.687	-0.0213	0.0066	-2.218	0.288	0.0668	0.0457	0.421
0.687	-0.0213	0.0066	-2.218	0.323	0.0596	0.0440	0.437
Run: jb0574				0.349	0.0536	0.0425	0.440
Avg RPM: 4999				0.383	0.0456	0.0406	0.430
J	C_T	C_P	η	0.416	0.0372	0.0383	0.405
0.446	0.0355	0.0290	0.547	0.451	0.0284	0.0359	0.356
0.472	0.0297	0.0269	0.522	0.479	0.0206	0.0337	0.293
0.497	0.0241	0.0249	0.481	0.514	0.0115	0.0313	0.189
0.524	0.0180	0.0226	0.418	0.547	0.0022	0.0286	0.042
0.554	0.0108	0.0197	0.304	0.568	-0.0041	0.0269	-0.086
0.581	0.0044	0.0171	0.150	0.605	-0.0145	0.0238	-0.369
0.606	-0.0015	0.0147	-0.061	0.637	-0.0249	0.0206	-0.771
Run: kt0968				Run: kt0968			
Avg RPM: 6022				J	C_T	C_P	η
				0.106	0.1023	0.0523	0.207
				0.133	0.0971	0.0514	0.251
				0.160	0.0922	0.0506	0.291
				0.185	0.0871	0.0495	0.326
				0.213	0.0812	0.0482	0.359

0.239	0.0757	0.0469	0.386
0.264	0.0702	0.0456	0.406
0.291	0.0643	0.0442	0.423
0.319	0.0578	0.0427	0.432
0.342	0.0519	0.0411	0.432
0.374	0.0443	0.0392	0.422
0.403	0.0365	0.0372	0.396
0.428	0.0300	0.0355	0.361
0.449	0.0241	0.0339	0.319
0.478	0.0162	0.0319	0.243
0.502	0.0093	0.0300	0.155
0.531	0.0010	0.0278	0.019

Run: kt0969

Avg RPM: 6001

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.449	0.0240	0.0339	0.318
0.477	0.0160	0.0318	0.241
0.500	0.0094	0.0300	0.156
0.530	0.0010	0.0278	0.020
0.559	-0.0077	0.0255	-0.169
0.584	-0.0154	0.0232	-0.386
0.611	-0.0243	0.0206	-0.721
0.646	-0.0350	0.0175	-1.294
0.671	-0.0436	0.0150	-1.956
0.697	-0.0522	0.0125	-2.917
0.715	-0.0586	0.0106	-3.961

Run: kt0970

Avg RPM: 6820

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.093	0.1038	0.0516	0.188
0.116	0.1000	0.0511	0.226
0.139	0.0954	0.0502	0.265
0.163	0.0905	0.0494	0.299
0.187	0.0852	0.0481	0.331
0.213	0.0801	0.0472	0.362
0.237	0.0743	0.0457	0.386
0.260	0.0693	0.0446	0.404
0.282	0.0637	0.0431	0.417
0.306	0.0579	0.0416	0.426
0.328	0.0522	0.0401	0.427
0.351	0.0466	0.0388	0.421
0.374	0.0403	0.0372	0.405
0.396	0.0341	0.0357	0.378
0.419	0.0278	0.0340	0.342
0.445	0.0208	0.0324	0.286
0.467	0.0143	0.0307	0.218

Run: kt0971

Avg RPM: 6815

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.397	0.0339	0.0356	0.378
0.421	0.0273	0.0339	0.338
0.444	0.0207	0.0323	0.284

0.466	0.0142	0.0306	0.216
0.491	0.0071	0.0289	0.121
0.514	0.0000	0.0271	0.001
0.540	-0.0079	0.0250	-0.170
0.562	-0.0145	0.0233	-0.350
0.583	-0.0217	0.0213	-0.593
0.605	-0.0290	0.0193	-0.909
0.637	-0.0393	0.0166	-1.507
0.657	-0.0459	0.0148	-2.036

Run: kt0975

Avg RPM: 5014

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.130	0.1396	0.0872	0.208
0.160	0.1354	0.0857	0.253
0.191	0.1305	0.0843	0.296
0.222	0.1257	0.0829	0.337
0.255	0.1205	0.0815	0.377
0.290	0.1141	0.0798	0.415
0.325	0.1075	0.0779	0.448
0.356	0.1013	0.0762	0.473
0.386	0.0948	0.0740	0.494
0.421	0.0862	0.0708	0.512
0.444	0.0795	0.0679	0.520
0.481	0.0699	0.0638	0.527
0.518	0.0606	0.0598	0.525
0.542	0.0551	0.0575	0.519
0.576	0.0463	0.0536	0.498
0.607	0.0380	0.0498	0.463
0.640	0.0293	0.0459	0.409

Run: kt0976

Avg RPM: 5002

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.543	0.0543	0.0572	0.516
0.573	0.0470	0.0539	0.499
0.607	0.0379	0.0498	0.462
0.641	0.0287	0.0456	0.404
0.672	0.0201	0.0415	0.325
0.705	0.0105	0.0371	0.200
0.736	0.0011	0.0327	0.025
0.769	-0.0089	0.0281	-0.244
0.799	-0.0191	0.0232	-0.659
0.830	-0.0296	0.0182	-1.351
0.864	-0.0414	0.0125	-2.866
0.895	-0.0526	0.0072	-6.526

Run: kt0977

Avg RPM: 6019

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.107	0.1458	0.0909	0.171
0.138	0.1410	0.0886	0.220
0.163	0.1369	0.0871	0.256
0.186	0.1333	0.0858	0.289
0.213	0.1288	0.0844	0.325
0.238	0.1249	0.0834	0.357
0.271	0.1189	0.0814	0.395
0.297	0.1139	0.0799	0.424
0.324	0.1089	0.0785	0.449
0.346	0.1040	0.0768	0.469
0.373	0.0982	0.0748	0.489
0.399	0.0922	0.0727	0.505
0.428	0.0839	0.0693	0.518
0.454	0.0768	0.0662	0.527

0.478	0.0701	0.0632	0.530	0.390	0.0551	0.0443	0.486	0.379	0.0916	0.0699	0.497
0.504	0.0629	0.0599	0.529	0.429	0.0454	0.0414	0.470	0.437	0.0774	0.0646	0.524
0.529	0.0563	0.0570	0.524	0.470	0.0347	0.0382	0.427	0.484	0.0675	0.0612	0.533
Run: kt0978											
Avg RPM: 6019											
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.505	0.0251	0.0352	0.360	0.533	0.0557	0.0565	0.525
0.454	0.0763	0.0659	0.525	0.535	0.0167	0.0325	0.275	0.585	0.0425	0.0510	0.487
0.479	0.0694	0.0629	0.529	0.577	0.0046	0.0287	0.093	0.620	0.0330	0.0468	0.436
0.504	0.0627	0.0598	0.528	0.613	-0.0060	0.0253	-0.146	0.678	0.0171	0.0400	0.290
0.530	0.0558	0.0567	0.522	0.643	-0.0156	0.0221	-0.454	0.726	0.0034	0.0342	0.071
0.557	0.0488	0.0536	0.507	0.680	-0.0270	0.0183	-1.006	0.770	-0.0106	0.0277	-0.294
0.583	0.0419	0.0504	0.485	0.715	-0.0389	0.0141	-1.980	0.816	-0.0259	0.0207	-1.018
Run: jb0878											
Avg RPM: 5015											
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.583	0.0419	0.0504	0.485	0.863	-0.0410	0.0139	-2.545
0.616	0.0332	0.0465	0.439	0.636	0.0272	0.0436	0.397	0.911	-0.0571	0.0068	-7.670
0.667	0.0180	0.0394	0.306	0.667	0.0180	0.0394	0.306	Run: jb0882			
0.696	0.0099	0.0357	0.193	0.715	0.0038	0.0328	0.083	Avg RPM: 4015			
0.754	-0.0085	0.0272	-0.235	0.771	-0.0144	0.0243	-0.457	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.805	-0.0258	0.0189	-1.098	0.805	-0.0258	0.0189	-1.098	0.114	0.1169	0.0601	0.222
0.833	-0.0359	0.0143	-2.095	0.833	-0.0359	0.0143	-2.095	0.143	0.1113	0.0589	0.270
0.860	-0.0459	0.0096	-4.109	0.860	-0.0459	0.0096	-4.109	0.199	0.1049	0.0575	0.315

GWS

Slow Flyer

10×4.7

Figs. 5.314–5.316

Run: jb0876

Avg RPM: 3007

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.190	0.0944	0.0537	0.334
0.235	0.0861	0.0517	0.390
0.286	0.0768	0.0498	0.441
0.338	0.0659	0.0472	0.472
0.380	0.0567	0.0449	0.480
0.432	0.0445	0.0416	0.462
0.475	0.0336	0.0384	0.416
0.528	0.0189	0.0334	0.299
0.575	0.0057	0.0292	0.112
0.619	-0.0072	0.0250	-0.177
0.676	-0.0243	0.0192	-0.855
0.724	-0.0398	0.0139	-2.075

Run: jb0877

Avg RPM: 4006

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.144	0.1070	0.0571	0.269
0.174	0.1001	0.0554	0.314
0.214	0.0929	0.0538	0.369
0.247	0.0869	0.0524	0.409
0.288	0.0781	0.0501	0.448
0.323	0.0708	0.0485	0.472
0.361	0.0620	0.0462	0.485

GWS

Slow Flyer

10×8

Figs. 5.320–5.322

Run: jb0879

Avg RPM: 4998

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.483	0.0296	0.0361	0.395
0.515	0.0205	0.0334	0.317
0.542	0.0126	0.0308	0.221
0.571	0.0037	0.0280	0.076
0.599	-0.0049	0.0253	-0.116
0.630	-0.0148	0.0221	-0.422
0.653	-0.0216	0.0209	-0.674

Run: jb0883

Avg RPM: 3995

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.605	0.0334	0.0455	0.445
0.647	0.0218	0.0405	0.348
0.683	0.0113	0.0361	0.214
0.717	0.0007	0.0315	0.017
0.751	-0.0102	0.0267	-0.287
0.790	-0.0229	0.0211	-0.860
0.824	-0.0344	0.0162	-1.748
0.864	-0.0474	0.0106	-3.858

Run: jb0884

Avg RPM: 5021

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.117	0.1409	0.0805	0.205
0.144	0.1372	0.0800	0.248
0.171	0.1324	0.0789	0.288
0.197	0.1289	0.0785	0.323
0.227	0.1237	0.0773	0.363
0.260	0.1175	0.0758	0.403

0.291	0.1121	0.0746	0.437	Run: jb0565	0.685	-0.0484	0.0112	-2.951
0.316	0.1065	0.0729	0.462	Avg RPM: 4000	0.712	-0.0575	0.0087	-4.694
0.344	0.1000	0.0708	0.486	J	C_T	C_P	η	0.739
0.376	0.0920	0.0681	0.508	0.130	0.0966	0.0461	0.273	-0.0666
0.398	0.0860	0.0659	0.520	0.162	0.0906	0.0449	0.326	0.0063
0.430	0.0774	0.0625	0.533	0.198	0.0837	0.0435	0.380	-7.760
0.457	0.0701	0.0595	0.538	0.228	0.0775	0.0422	0.419	0.0064
0.487	0.0620	0.0562	0.537	0.266	0.0697	0.0406	0.457	-7.749
0.517	0.0539	0.0527	0.528	0.298	0.0620	0.0388	0.475	0.0064
0.540	0.0474	0.0499	0.513	0.329	0.0552	0.0376	0.485	-7.749
0.574	0.0380	0.0460	0.475	0.364	0.0471	0.0357	0.480	0.0064
Run: jb0885				0.398	0.0388	0.0338	0.457	0.277
Avg RPM: 5005				0.431	0.0307	0.0319	0.415	0.154
J				0.464	0.0219	0.0297	0.343	0.175
0.488	0.0616	0.0560	0.537	0.496	0.0130	0.0274	0.236	0.197
0.513	0.0548	0.0530	0.530	0.531	0.0033	0.0248	0.071	0.219
0.543	0.0467	0.0496	0.512	0.556	-0.0042	0.0228	-0.104	0.243
0.574	0.0381	0.0460	0.476	0.592	-0.0148	0.0199	-0.439	0.263
0.602	0.0300	0.0426	0.424	0.623	-0.0245	0.0174	-0.876	0.287
0.636	0.0199	0.0384	0.329	0.655	-0.0349	0.0144	-1.590	0.304
0.663	0.0112	0.0347	0.215	Run: jb0566				0.328
0.691	0.0025	0.0310	0.057	Avg RPM: 5003				0.352
0.720	-0.0068	0.0270	-0.182	J	C_T	C_P	η	0.375
0.751	-0.0170	0.0227	-0.564	0.108	0.1055	0.0486	0.234	0.392
GWS								
Slow Flyer								
11×4.7								
Figs. 5.326–5.328								
Run: jb0564				0.130	0.1015	0.0481	0.274	0.415
Avg RPM: 3003				0.159	0.0961	0.0471	0.324	0.435
J				0.184	0.0905	0.0459	0.362	0.392
0.174	0.0832	0.0423	0.341	0.207	0.0859	0.0450	0.395	0.415
0.215	0.0764	0.0412	0.399	0.235	0.0795	0.0435	0.430	0.435
0.261	0.0680	0.0397	0.448	0.261	0.0735	0.0422	0.455	0.457
0.313	0.0572	0.0375	0.477	0.292	0.0668	0.0410	0.476	0.478
0.353	0.0484	0.0358	0.477	0.318	0.0597	0.0391	0.485	0.482
0.400	0.0376	0.0335	0.450	0.343	0.0534	0.0376	0.486	0.502
0.437	0.0290	0.0315	0.402	0.371	0.0463	0.0359	0.478	0.526
0.486	0.0163	0.0285	0.278	0.398	0.0393	0.0342	0.457	-0.0007
0.530	0.0044	0.0254	0.092	0.419	0.0335	0.0328	0.429	0.0067
0.566	-0.0062	0.0224	-0.157	0.446	0.0262	0.0309	0.379	-0.0082
0.622	-0.0224	0.0181	-0.771	0.476	0.0174	0.0286	0.290	-0.0152
0.662	-0.0347	0.0147	-1.562	0.497	0.0113	0.0270	0.208	-0.0113
0.702	-0.0474	0.0111	-3.005	0.523	0.0033	0.0249	0.069	-0.0213
0.747	-0.0619	0.0069	-6.712	Run: jb0567				0.592
0.746	-0.0618	0.0069	-6.700	Avg RPM: 4997				0.616
0.746	-0.0618	0.0069	-6.700	J	C_T	C_P	η	0.635
0.746	-0.0618	0.0069	-6.700	0.445	0.0259	0.0307	0.376	-0.0421
0.746	-0.0618	0.0069	-6.700	0.473	0.0181	0.0287	0.299	0.0178
0.746	-0.0618	0.0069	-6.700	0.499	0.0105	0.0267	0.197	0.0179
0.746	-0.0618	0.0069	-6.700	0.525	0.0028	0.0247	0.059	-2.225
0.746	-0.0618	0.0069	-6.700	0.550	-0.0049	0.0227	-0.119	0.0179
0.746	-0.0618	0.0069	-6.700	0.576	-0.0130	0.0206	-0.366	-2.209
0.746	-0.0618	0.0069	-6.700	0.607	-0.0227	0.0181	-0.763	-2.209
0.746	-0.0618	0.0069	-6.700	0.633	-0.0311	0.0158	-1.251	-2.209
0.746	-0.0618	0.0069	-6.700	0.661	-0.0401	0.0134	-1.977	-2.209

GWS				Run: rd0650				Run: rd0653			
Slow Flyer				Run: rd0650				Run: rd0653			
11×8				Run: rd0650				Run: rd0653			
Figs. 5.332–5.334				Run: rd0650				Run: rd0653			
Run: kt0650				Run: rd0653				Run: rd0653			
Avg RPM: 3011				Run: rd0653				Run: rd0653			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.172	0.1266	0.0702	0.311	0.102	0.1436	0.0773	0.190	0.298	0.1124	0.0701	0.477
0.216	0.1205	0.0697	0.373	0.131	0.1401	0.0764	0.240	0.324	0.1061	0.0681	0.506
0.264	0.1115	0.0679	0.433	0.157	0.1359	0.0754	0.283	0.346	0.1006	0.0662	0.526
0.302	0.1041	0.0663	0.474	0.181	0.1324	0.0746	0.322	0.368	0.0952	0.0643	0.544
0.355	0.0926	0.0630	0.522	0.207	0.1280	0.0736	0.361	0.394	0.0885	0.0619	0.563
0.393	0.0841	0.0602	0.550	0.235	0.1236	0.0727	0.399	0.411	0.0837	0.0601	0.573
0.444	0.0724	0.0562	0.572	0.263	0.1179	0.0711	0.436	0.436	0.0764	0.0571	0.583
0.476	0.0650	0.0535	0.578	0.289	0.1133	0.0701	0.467	0.460	0.0693	0.0542	0.588
0.524	0.0534	0.0492	0.569	0.316	0.1067	0.0679	0.497	0.480	0.0632	0.0518	0.586
0.580	0.0394	0.0439	0.521	0.342	0.1006	0.0660	0.521	0.506	0.0555	0.0486	0.577
0.609	0.0318	0.0408	0.474	0.369	0.0945	0.0642	0.544	0.525	0.0499	0.0463	0.565
0.662	0.0164	0.0344	0.317	0.397	0.0880	0.0620	0.564	0.551	0.0415	0.0429	0.533
0.701	0.0051	0.0296	0.120	0.417	0.0823	0.0597	0.575	0.574	0.0342	0.0400	0.491
0.742	-0.0079	0.0243	-0.242	0.441	0.0757	0.0572	0.584	0.602	0.0259	0.0366	0.426
0.788	-0.0226	0.0181	-0.982	0.471	0.0676	0.0540	0.590	0.620	0.0194	0.0339	0.355
0.831	-0.0365	0.0121	-2.509	0.495	0.0607	0.0513	0.586	0.648	0.0102	0.0301	0.221
Run: rd0651				0.523	0.0526	0.0480	0.573	0.666	0.0043	0.0279	0.102
Avg RPM: 4014				Run: rd0654				0.693	-0.0050	0.0241	-0.143
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	Run: rd0654				0.718	-0.0144	0.0275	-0.378
0.128	0.1360	0.0731	0.237	Run: rd0654				0.718	-0.0146	0.0278	-0.377
0.171	0.1300	0.0721	0.309	Run: rd0654				0.718	-0.0146	0.0278	-0.377
0.195	0.1266	0.0716	0.344	Run: rd0654				0.718	-0.0146	0.0278	-0.377
0.227	0.1215	0.0708	0.390	Run: rd0654				0.718	-0.0146	0.0278	-0.377
0.258	0.1165	0.0699	0.429	Run: rd0654				0.718	-0.0146	0.0278	-0.377
0.297	0.1086	0.0679	0.475	Run: rd0654				Run: rd0654			
0.327	0.1024	0.0663	0.504	Run: rd0654				Run: rd0654			
0.364	0.0940	0.0637	0.537	Run: rd0654				Run: rd0654			
0.390	0.0882	0.0618	0.556	Run: rd0654				Run: rd0654			
0.427	0.0788	0.0585	0.575	Run: rd0654				Run: rd0654			
0.465	0.0692	0.0549	0.586	Run: rd0654				Run: rd0654			
0.496	0.0613	0.0519	0.586	Run: rd0654				Run: rd0654			
0.524	0.0534	0.0487	0.575	Run: rd0654				Run: rd0654			
0.556	0.0449	0.0453	0.551	Run: rd0654				Run: rd0654			
0.590	0.0355	0.0415	0.504	Run: rd0654				Run: rd0654			
0.622	0.0264	0.0378	0.434	Run: rd0654				Run: rd0654			
0.656	0.0162	0.0337	0.316	Run: rd0654				Run: rd0654			
Run: rd0652				Run: rd0654				Run: rd0654			
Avg RPM: 3998				Run: rd0654				Run: rd0654			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	Run: rd0654				Run: rd0654			
0.558	0.0438	0.0449	0.544	0.117	0.1438	0.0793	0.212	0.406	0.0506	0.0504	0.408
0.584	0.0366	0.0420	0.508	0.139	0.1410	0.0783	0.250	0.448	0.0430	0.0475	0.406
0.624	0.0253	0.0374	0.423	0.162	0.1376	0.0773	0.289	0.477	0.0381	0.0455	0.399
0.655	0.0161	0.0336	0.313	0.185	0.1342	0.0764	0.325	0.528	0.0282	0.0412	0.362
0.690	0.0052	0.0291	0.123	0.205	0.1306	0.0754	0.356	0.555	0.0230	0.0387	0.330
Run: rd0655				0.230	0.1263	0.0742	0.391	0.601	0.0138	0.0343	0.242
Avg RPM: 5712				0.255	0.1210	0.0727	0.424	0.647	0.0039	0.0293	0.086
				0.277	0.1167	0.0714	0.453				

0.686	-0.0042	0.0252	-0.114	0.424	0.0552	0.0523	0.447	0.541	0.0328	0.0440	0.403
0.729	-0.0142	0.0196	-0.526	0.453	0.0490	0.0502	0.443	0.564	0.0282	0.0421	0.378
0.769	-0.0230	0.0146	-1.205	0.478	0.0446	0.0485	0.439	0.586	0.0236	0.0402	0.345
0.804	-0.0309	0.0100	-2.495	0.503	0.0393	0.0465	0.425	0.608	0.0191	0.0383	0.303
Run: jb1041				0.528	0.0341	0.0443	0.407	0.635	0.0131	0.0354	0.235
Avg RPM: 5002				Run: jb1044				0.661	0.0076	0.0326	0.154
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	Avg RPM: 6024				0.682	0.0031	0.0303	0.070
0.130	0.1019	0.0569	0.232	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.712	-0.0035	0.0266	-0.095
0.160	0.0985	0.0575	0.274	0.448	0.0501	0.0505	0.443	0.731	-0.0082	0.0238	-0.251
0.192	0.0944	0.0581	0.312	0.478	0.0441	0.0484	0.435	0.758	-0.0145	0.0202	-0.546
0.227	0.0888	0.0583	0.346	0.503	0.0390	0.0463	0.424				
0.261	0.0824	0.0580	0.371	0.530	0.0338	0.0441	0.405				
0.293	0.0763	0.0572	0.391	0.556	0.0282	0.0417	0.375				
0.323	0.0706	0.0561	0.406	0.582	0.0226	0.0394	0.334				
0.354	0.0644	0.0546	0.417	0.614	0.0157	0.0363	0.266				
0.385	0.0583	0.0530	0.423	0.642	0.0099	0.0334	0.191				
0.414	0.0529	0.0514	0.427	0.670	0.0038	0.0302	0.083				
0.448	0.0465	0.0491	0.424	0.694	-0.0014	0.0274	-0.036				
0.477	0.0412	0.0471	0.417	0.725	-0.0086	0.0233	-0.268				
0.511	0.0343	0.0441	0.397	0.746	-0.0131	0.0208	-0.470				
0.545	0.0278	0.0413	0.367	0.783	-0.0220	0.0154	-1.117				
0.583	0.0198	0.0376	0.307	0.806	-0.0278	0.0119	-1.886				
0.602	0.0160	0.0359	0.269	0.829	-0.0337	0.0083	-3.344				
0.640	0.0079	0.0319	0.158								
Run: jb1042				Run: jb1045							
Avg RPM: 5002				Avg RPM: 6817							
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.545	0.0273	0.0411	0.363	0.095	0.1066	0.0550	0.184	0.470	0.0495	0.0467	0.498
0.578	0.0206	0.0381	0.313	0.118	0.1053	0.0559	0.222	0.504	0.0421	0.0435	0.487
0.602	0.0158	0.0359	0.265	0.142	0.1036	0.0567	0.260	0.548	0.0325	0.0391	0.455
0.640	0.0077	0.0319	0.155	0.164	0.1017	0.0574	0.291	0.582	0.0248	0.0355	0.407
0.674	0.0001	0.0280	0.003	0.188	0.0994	0.0581	0.322	0.614	0.0176	0.0320	0.338
0.709	-0.0077	0.0236	-0.230	0.214	0.0963	0.0587	0.352	0.650	0.0086	0.0274	0.205
0.737	-0.0138	0.0202	-0.505	0.237	0.0931	0.0589	0.375	0.685	-0.0004	0.0225	-0.012
0.768	-0.0207	0.0161	-0.988	0.259	0.0896	0.0588	0.395	0.721	-0.0098	0.0171	-0.412
0.800	-0.0283	0.0117	-1.936	0.282	0.0853	0.0586	0.411				
0.833	-0.0361	0.0068	-4.396	0.305	0.0809	0.0582	0.424				
Run: jb1043				0.329	0.0760	0.0575	0.435				
Avg RPM: 6033				0.351	0.0715	0.0567	0.443				
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.375	0.0668	0.0556	0.450				
0.107	0.1054	0.0558	0.202	0.401	0.0613	0.0541	0.454				
0.133	0.1035	0.0566	0.242	0.429	0.0560	0.0525	0.457				
0.157	0.1015	0.0575	0.278	0.450	0.0517	0.0513	0.454				
0.187	0.0979	0.0579	0.316	0.473	0.0473	0.0498	0.449				
0.215	0.0946	0.0586	0.347								
0.242	0.0904	0.0587	0.372	Run: jb1046							
0.267	0.0860	0.0585	0.393	Avg RPM: 6819							
0.293	0.0811	0.0581	0.409	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	0.373	0.0693	0.0521	0.496
0.319	0.0757	0.0573	0.421	0.396	0.0622	0.0546	0.452	0.402	0.0646	0.0510	0.510
0.345	0.0703	0.0563	0.431	0.424	0.0566	0.0528	0.454	0.434	0.0590	0.0494	0.518
0.370	0.0652	0.0551	0.438	0.446	0.0524	0.0515	0.453	0.459	0.0542	0.0478	0.521
0.398	0.0601	0.0538	0.444	0.472	0.0468	0.0496	0.445	0.489	0.0481	0.0456	0.516
				0.492	0.0433	0.0484	0.440				
				0.514	0.0384	0.0461	0.428				

Run: jb0765				Run: jb0766				Run: jb0767				Run: rd0771			
Avg RPM: 5006				Avg RPM: 6511				Avg RPM: 6022				Avg RPM: 3997			
J	C_T	C_P	η	J	C_T	C_P	η	J	C_T	C_P	η	J	C_T	C_P	η
0.513	0.0431	0.0436	0.507	0.695	0.0030	0.0243	0.084	0.144	0.1005	0.0651	0.222	0.177	0.1000	0.0649	0.273
0.547	0.0353	0.0402	0.480	0.726	-0.0056	0.0195	-0.208	0.177	0.0984	0.0651	0.326	0.216	0.0956	0.0659	0.373
0.570	0.0305	0.0381	0.456	0.748	-0.0117	0.0160	-0.547	0.257	0.0920	0.0663	0.409	0.771	-0.0181	0.0121	-1.156
				0.797	-0.0251	0.0080	-2.492	0.294	0.0886	0.0667	0.439				Figs. 5.350–5.352
								0.330	0.0842	0.0665	0.461				
								0.364	0.0796	0.0660	0.487				
								0.404	0.0748	0.0653	0.502				
								0.438	0.0698	0.0643	0.512				
								0.471	0.0652	0.0632	0.517				
								0.501	0.0575	0.0609	0.511				
								0.541	0.0510	0.0585	0.500				
								0.573	0.0415	0.0541	0.470				
								0.613	0.0341	0.0503	0.435				
								0.642	0.0233	0.0443	0.360				
								0.686	0.0131	0.0382	0.248				
								0.726							
Run: jb0772				Run: jb0769				Run: jb0772				Run: rd0772			
Avg RPM: 3998				Avg RPM: 6510				Avg RPM: 4975				Avg RPM: 3998			
J	C_T	C_P	η	J	C_T	C_P	η	J	C_T	C_P	η	J	C_T	C_P	η
0.092	0.0981	0.0559	0.161	0.355	0.0737	0.0526	0.497	0.610	0.0418	0.0545	0.468	0.378	0.0701	0.0519	0.509
0.118	0.0966	0.0559	0.204	0.377	0.0702	0.0520	0.510	0.644	0.0341	0.0505	0.435	0.401	0.0665	0.0512	0.521
0.145	0.0948	0.0558	0.246	0.398	0.0671	0.0514	0.521	0.687	0.0229	0.0442	0.355	0.421	0.0629	0.0503	0.527
0.167	0.0932	0.0558	0.278	0.419	0.0635	0.0504	0.528	0.719	0.0146	0.0392	0.267	0.442	0.0595	0.0494	0.533
0.194	0.0917	0.0552	0.322	0.441	0.0599	0.0494	0.534	0.756	0.0047	0.0332	0.108	0.578	0.0318	0.0389	0.473
0.218	0.0892	0.0548	0.355					0.795	-0.0058	0.0265	-0.175				
0.240	0.0871	0.0546	0.383					0.829	-0.0144	0.0210	-0.567				
0.267	0.0848	0.0538	0.420					0.865	-0.0233	0.0149	-1.353				
0.290	0.0821	0.0537	0.443					0.901	-0.0321	0.0085	-3.390				
0.314	0.0789	0.0534	0.464												
0.335	0.0761	0.0530	0.480												
0.359	0.0726	0.0525	0.497												
0.382	0.0692	0.0519	0.509												
0.406	0.0651	0.0509	0.519												
0.433	0.0604	0.0496	0.528												
0.455	0.0563	0.0484	0.529												
0.478	0.0520	0.0470	0.530												
Run: jb0768				Run: jb0770				Run: jb0773				Run: rd0773			
Avg RPM: 6016				Avg RPM: 4975				Avg RPM: 4975				Avg RPM: 3998			
J	C_T	C_P	η	J	C_T	C_P	η	J	C_T	C_P	η	J	C_T	C_P	η
0.408	0.0646	0.0507	0.519	0.624	0.0213	0.0339	0.392	0.112	0.1063	0.0634	0.188	0.644	0.0167	0.0317	0.339
0.433	0.0605	0.0497	0.528	0.670	0.0105	0.0285	0.246	0.144	0.1079	0.0628	0.248	0.688	0.0058	0.0261	0.154
0.459	0.0557	0.0482	0.530	0.714	-0.0012	0.0221	-0.038	0.175	0.1055	0.0636	0.290	0.730	-0.0052	0.0197	-0.193
0.478	0.0520	0.0469	0.529	0.756	-0.0125	0.0155	-0.611	0.203	0.1032	0.0642	0.326	0.779	-0.0193	0.0116	-1.298
0.501	0.0474	0.0453	0.525	0.801	-0.0248	0.0082	-2.432	0.235	0.1003	0.0647	0.364				
0.529	0.0414	0.0429	0.510					0.264	0.0975	0.0652	0.395				
0.551	0.0368	0.0410	0.494					0.294	0.0946	0.0656	0.423				
0.573	0.0319	0.0388	0.470					0.324	0.0913	0.0659	0.450				
0.596	0.0268	0.0365	0.437					0.353	0.0879	0.0659	0.471				
0.626	0.0198	0.0332	0.374					0.382	0.0846	0.0660	0.490				
0.647	0.0148	0.0307	0.312					0.407	0.0815	0.0658	0.504				
0.676	0.0077	0.0270	0.194					0.436	0.0776	0.0654	0.517				

0.468	0.0728	0.0646	0.528	0.549	0.0616	0.0615	0.550	0.664	0.0415	0.0542	0.508	
0.491	0.0697	0.0640	0.535	0.578	0.0567	0.0600	0.546	0.691	0.0358	0.0517	0.479	
0.519	0.0654	0.0630	0.538	0.600	0.0526	0.0586	0.539	0.708	0.0314	0.0493	0.451	
0.546	0.0609	0.0618	0.538	0.623	0.0487	0.0573	0.529	0.736	0.0244	0.0459	0.391	
0.573	0.0560	0.0603	0.532	0.649	0.0432	0.0550	0.510	0.754	0.0195	0.0431	0.340	
Run: rd0774				0.676	0.0374	0.0523	0.483	0.781	0.0121	0.0391	0.241	
Avg RPM: 5001				0.698	0.0324	0.0499	0.453	0.798	0.0072	0.0363	0.158	
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>								
0.489	0.0697	0.0640	0.533	0.719	0.0268	0.0470	0.410	0.825	-0.0007	0.0313	-0.018	
0.520	0.0649	0.0630	0.536	0.748	0.0184	0.0424	0.325	0.840	-0.0049	0.0285	-0.145	
0.547	0.0607	0.0619	0.537	0.770	0.0124	0.0390	0.245	0.868	-0.0138	0.0223	-0.538	
0.573	0.0559	0.0602	0.531	0.790	0.0066	0.0357	0.146	0.884	-0.0182	0.0190	-0.848	
0.606	0.0487	0.0576	0.513	0.814	-0.0003	0.0313	-0.007					
0.631	0.0435	0.0553	0.496	0.845	-0.0099	0.0247	-0.339					
0.661	0.0365	0.0521	0.464	0.860	-0.0142	0.0218	-0.562					
0.692	0.0284	0.0477	0.411	0.893	-0.0241	0.0146	-1.475					
0.720	0.0205	0.0433	0.341	0.918	-0.0309	0.0095	-2.992					
Run: rd0777				Run: rd0777				Run: rd0775				
Avg RPM: 6471				Avg RPM: 3003				Avg RPM: 5967				
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>					<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>
0.785	0.0019	0.0321	0.047	0.088	0.1135	0.0605	0.165	0.173	0.0970	0.0543	0.309	
0.813	-0.0059	0.0271	-0.177	0.114	0.1121	0.0613	0.209	0.218	0.0923	0.0548	0.367	
0.841	-0.0136	0.0218	-0.523	0.135	0.1110	0.0621	0.242	0.259	0.0876	0.0550	0.413	
0.871	-0.0216	0.0162	-1.161	0.156	0.1094	0.0625	0.274	0.304	0.0823	0.0550	0.455	
0.897	-0.0284	0.0113	-2.252	0.177	0.1077	0.0631	0.302	0.354	0.0746	0.0542	0.488	
Run: rd0775				0.202	0.1056	0.0637	0.335	0.391	0.0681	0.0529	0.503	
Avg RPM: 5967				0.225	0.1034	0.0641	0.363	0.438	0.0573	0.0499	0.503	
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>					<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>
0.097	0.1129	0.0611	0.179	0.246	0.1016	0.0647	0.386	0.474	0.0500	0.0475	0.499	
0.124	0.1110	0.0618	0.223	0.268	0.0993	0.0649	0.410	0.526	0.0395	0.0429	0.485	
0.144	0.1099	0.0624	0.254	0.291	0.0970	0.0652	0.432	0.577	0.0298	0.0383	0.449	
0.170	0.1078	0.0630	0.290	0.313	0.0944	0.0653	0.452	0.611	0.0234	0.0352	0.406	
0.193	0.1058	0.0635	0.322	0.335	0.0919	0.0654	0.470	0.666	0.0123	0.0291	0.281	
0.220	0.1036	0.0642	0.355	0.356	0.0892	0.0655	0.485	0.699	0.0050	0.0249	0.140	
0.244	0.1014	0.0647	0.383	0.379	0.0864	0.0655	0.501	0.746	-0.0050	0.0190	-0.197	
0.265	0.0989	0.0649	0.404	0.401	0.0837	0.0654	0.513	0.789	-0.0138	0.0136	-0.796	
0.291	0.0960	0.0652	0.429	0.423	0.0808	0.0652	0.524	0.836	-0.0241	0.0071	-2.850	
0.314	0.0934	0.0653	0.450	0.445	0.0777	0.0649	0.533	Run: rd0706				
0.342	0.0903	0.0654	0.472	Run: rd0778				Avg RPM: 3995				
0.365	0.0874	0.0654	0.488	Avg RPM: 6506					<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>
0.387	0.0854	0.0657	0.503		<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>	0.130	0.1032	0.0527	0.255
0.411	0.0821	0.0654	0.516	0.380	0.0862	0.0654	0.501	0.164	0.1006	0.0534	0.309	
0.435	0.0788	0.0652	0.526	0.405	0.0831	0.0653	0.515	0.198	0.0979	0.0542	0.359	
0.458	0.0753	0.0646	0.535	0.423	0.0808	0.0652	0.524	0.233	0.0946	0.0546	0.403	
0.482	0.0720	0.0641	0.542	0.445	0.0776	0.0647	0.534	0.265	0.0917	0.0551	0.441	
Run: rd0776				0.467	0.0745	0.0643	0.541	0.297	0.0879	0.0553	0.472	
Avg RPM: 6017				0.488	0.0713	0.0637	0.547	0.331	0.0837	0.0552	0.502	
	<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>					<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>
0.408	0.0822	0.0653	0.514	0.511	0.0679	0.0629	0.551	0.364	0.0789	0.0548	0.524	
0.433	0.0790	0.0651	0.526	0.531	0.0647	0.0621	0.553	0.392	0.0751	0.0544	0.541	
0.455	0.0759	0.0646	0.534	0.557	0.0606	0.0610	0.553	0.426	0.0692	0.0534	0.551	
0.479	0.0725	0.0641	0.542	0.577	0.0573	0.0601	0.550	0.457	0.0628	0.0517	0.555	
0.502	0.0689	0.0633	0.547	0.599	0.0535	0.0588	0.545	0.490	0.0558	0.0496	0.551	
0.526	0.0653	0.0625	0.550	0.622	0.0492	0.0573	0.534	0.525	0.0479	0.0466	0.540	
				0.644	0.0456	0.0559	0.525	0.558	0.0403	0.0433	0.520	

0.591	0.0331	0.0400	0.488
0.624	0.0261	0.0365	0.445
0.656	0.0186	0.0326	0.375

Run: kt0707

Avg RPM: 3999

J	C_T	C_P	η
0.555	0.0406	0.0434	0.518
0.592	0.0328	0.0399	0.487
0.624	0.0256	0.0363	0.440
0.646	0.0209	0.0338	0.400
0.688	0.0112	0.0286	0.270
0.722	0.0033	0.0241	0.100
0.752	-0.0032	0.0203	-0.119
0.793	-0.0126	0.0145	-0.690
0.828	-0.0202	0.0096	-1.738

Run: jb0708

Avg RPM: 4991

J	C_T	C_P	η
0.108	0.1054	0.0516	0.220
0.133	0.1037	0.0522	0.264
0.160	0.1022	0.0530	0.308
0.184	0.1002	0.0535	0.344
0.212	0.0980	0.0540	0.384
0.239	0.0953	0.0543	0.420
0.263	0.0930	0.0546	0.448
0.293	0.0900	0.0551	0.479
0.320	0.0869	0.0552	0.505
0.345	0.0844	0.0554	0.526
0.369	0.0812	0.0551	0.543
0.394	0.0771	0.0546	0.556
0.424	0.0729	0.0543	0.570
0.445	0.0691	0.0535	0.574
0.471	0.0648	0.0527	0.579
0.496	0.0596	0.0511	0.577
0.519	0.0546	0.0495	0.572

Run: jb0709

Avg RPM: 5004

J	C_T	C_P	η
0.444	0.0693	0.0537	0.574
0.472	0.0642	0.0524	0.577
0.495	0.0593	0.0509	0.576
0.519	0.0540	0.0492	0.570
0.550	0.0471	0.0465	0.557
0.574	0.0420	0.0444	0.544
0.607	0.0340	0.0406	0.508
0.624	0.0303	0.0389	0.486
0.660	0.0209	0.0340	0.406
0.686	0.0150	0.0309	0.333
0.712	0.0088	0.0274	0.229
0.738	0.0027	0.0239	0.084
0.766	-0.0036	0.0201	-0.139
0.792	-0.0094	0.0165	-0.451

0.819	-0.0158	0.0125	-1.031
0.845	-0.0216	0.0087	-2.111

Run: jb0710

Avg RPM: 5987

J	C_T	C_P	η
0.090	0.1071	0.0509	0.190
0.109	0.1062	0.0515	0.224
0.129	0.1046	0.0519	0.261
0.154	0.1028	0.0524	0.302
0.176	0.1013	0.0530	0.337
0.195	0.0999	0.0535	0.364
0.219	0.0980	0.0539	0.397
0.243	0.0961	0.0544	0.429
0.265	0.0940	0.0547	0.455
0.287	0.0920	0.0551	0.479
0.309	0.0898	0.0554	0.501
0.328	0.0876	0.0554	0.518
0.350	0.0852	0.0555	0.537
0.372	0.0824	0.0554	0.554
0.394	0.0795	0.0552	0.567
0.416	0.0765	0.0551	0.578
0.437	0.0735	0.0547	0.587

Run: jb0711

Avg RPM: 6014

J	C_T	C_P	η
0.372	0.0821	0.0553	0.553
0.393	0.0796	0.0553	0.566
0.415	0.0766	0.0551	0.578
0.436	0.0735	0.0546	0.588
0.457	0.0702	0.0541	0.593
0.477	0.0667	0.0534	0.596
0.498	0.0627	0.0523	0.597
0.524	0.0572	0.0507	0.592
0.547	0.0525	0.0490	0.587
0.567	0.0486	0.0476	0.579
0.593	0.0424	0.0449	0.559
0.612	0.0381	0.0429	0.542
0.637	0.0315	0.0398	0.505
0.655	0.0272	0.0377	0.472
0.680	0.0210	0.0346	0.413
0.698	0.0169	0.0325	0.365
0.725	0.0101	0.0286	0.255
0.742	0.0061	0.0263	0.173
0.759	0.0021	0.0240	0.066
0.789	-0.0050	0.0197	-0.201
0.813	-0.0102	0.0164	-0.507
0.831	-0.0144	0.0138	-0.867
0.855	-0.0205	0.0099	-1.770
0.877	-0.0258	0.0063	-3.596

Kyosho

11×9

Figs. 5.362–5.364

Run: rd0607

Avg RPM: 3006

J	C_T	C_P	η
0.175	0.1020	0.0667	0.268
0.217	0.1000	0.0673	0.322
0.266	0.0959	0.0675	0.378
0.311	0.0928	0.0677	0.426
0.354	0.0892	0.0677	0.466
0.398	0.0849	0.0676	0.499
0.437	0.0802	0.0674	0.521
0.479	0.0747	0.0665	0.538
0.526	0.0680	0.0649	0.551
0.574	0.0598	0.0623	0.551
0.613	0.0534	0.0602	0.544
0.663	0.0442	0.0560	0.522
0.697	0.0380	0.0533	0.496
0.744	0.0279	0.0476	0.436
0.791	0.0179	0.0416	0.340
0.817	0.0127	0.0387	0.268
0.876	-0.0005	0.0299	-0.014

Run: rd0608

Avg RPM: 4000

J	C_T	C_P	η
0.128	0.1106	0.0645	0.220
0.168	0.1079	0.0653	0.277
0.197	0.1054	0.0656	0.317
0.228	0.1034	0.0664	0.356
0.266	0.0999	0.0666	0.399
0.299	0.0991	0.0679	0.436
0.331	0.0958	0.0681	0.466
0.361	0.0932	0.0686	0.491
0.394	0.0899	0.0689	0.514
0.427	0.0861	0.0687	0.535
0.459	0.0824	0.0685	0.552
0.491	0.0782	0.0680	0.564
0.523	0.0737	0.0672	0.573
0.555	0.0685	0.0662	0.575
0.592	0.0623	0.0643	0.573
0.620	0.0575	0.0627	0.568
0.661	0.0500	0.0598	0.553

Run: rd0609

Avg RPM: 3999

J	C_T	C_P	η
0.556	0.0681	0.0658	0.575
0.586	0.0627	0.0643	0.571
0.622	0.0569	0.0624	0.567
0.655	0.0508	0.0600	0.554

Master Airscrew				
Electric				
9×6				
Figs. 5.368–5.370				
Run: kj1018				
Avg RPM: 4020				
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	
0.156	0.0920	0.0739	0.194	
0.197	0.0879	0.0734	0.236	
0.236	0.0841	0.0732	0.271	
0.276	0.0799	0.0725	0.304	
0.320	0.0750	0.0716	0.335	
0.355	0.0710	0.0707	0.356	
0.394	0.0660	0.0698	0.373	
0.432	0.0604	0.0685	0.381	
0.477	0.0537	0.0669	0.383	
0.519	0.0475	0.0653	0.378	
0.552	0.0414	0.0626	0.365	
0.595	0.0335	0.0595	0.335	
0.627	0.0278	0.0573	0.304	
0.675	0.0184	0.0534	0.232	
0.707	0.0115	0.0504	0.161	
0.752	0.0002	0.0459	0.004	
0.792	-0.0102	0.0420	-0.193	
Run: kj1019				
Avg RPM: 5019				
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	
0.126	0.0991	0.0744	0.167	
0.157	0.0959	0.0741	0.203	
0.188	0.0928	0.0739	0.237	
0.219	0.0898	0.0737	0.267	
0.255	0.0860	0.0734	0.299	
0.286	0.0826	0.0730	0.324	
0.318	0.0794	0.0727	0.347	
0.353	0.0751	0.0721	0.368	
0.380	0.0719	0.0716	0.381	
0.416	0.0665	0.0705	0.393	
0.440	0.0632	0.0698	0.398	
0.471	0.0585	0.0686	0.402	
0.507	0.0532	0.0671	0.402	
0.536	0.0482	0.0654	0.395	
0.570	0.0424	0.0632	0.382	
0.598	0.0377	0.0614	0.367	
0.635	0.0307	0.0587	0.332	
Run: kj1020				
Avg RPM: 5011				
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	
0.534	0.0482	0.0653	0.395	
0.568	0.0427	0.0633	0.383	
0.603	0.0366	0.0610	0.361	
0.630	0.0318	0.0590	0.340	

0.666	0.0244	0.0560	0.290
0.691	0.0190	0.0538	0.244
0.727	0.0106	0.0504	0.153
0.753	0.0039	0.0480	0.061
0.791	-0.0068	0.0440	-0.123
0.815	-0.0132	0.0416	-0.259
0.862	-0.0268	0.0362	-0.638
0.884	-0.0324	0.0341	-0.840
0.923	-0.0435	0.0296	-1.356
0.955	-0.0520	0.0261	-1.900
0.987	-0.0605	0.0229	-2.610
1.019	-0.0684	0.0198	-3.525
1.050	-0.0765	0.0168	-4.784
Run: kj1021			
Avg RPM: 6015			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.106	0.1048	0.0743	0.149
0.130	0.1028	0.0745	0.180
0.157	0.1006	0.0748	0.211
0.186	0.0977	0.0747	0.243
0.211	0.0949	0.0744	0.270
0.240	0.0921	0.0743	0.297
0.266	0.0889	0.0738	0.321
0.290	0.0860	0.0735	0.340
0.320	0.0835	0.0735	0.363
0.342	0.0812	0.0734	0.379
0.368	0.0777	0.0729	0.392
0.399	0.0737	0.0721	0.408
0.420	0.0708	0.0717	0.414
0.446	0.0669	0.0710	0.420
0.471	0.0629	0.0701	0.423
0.502	0.0579	0.0687	0.423
0.528	0.0536	0.0672	0.421
Run: kj1022			
Avg RPM: 6029			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.445	0.0666	0.0708	0.419
0.473	0.0626	0.0699	0.424
0.499	0.0584	0.0688	0.424
0.524	0.0541	0.0674	0.421
0.549	0.0500	0.0661	0.416
0.581	0.0441	0.0639	0.401
0.606	0.0396	0.0624	0.384
0.630	0.0352	0.0606	0.366
0.655	0.0301	0.0586	0.336
0.682	0.0242	0.0563	0.293
0.712	0.0173	0.0536	0.230
0.737	0.0111	0.0513	0.160
0.766	0.0032	0.0485	0.051
0.791	-0.0036	0.0460	-0.061
0.816	-0.0107	0.0433	-0.202
0.846	-0.0191	0.0403	-0.400

0.868	-0.0252	0.0381	-0.574
0.901	-0.0345	0.0345	-0.902
0.924	-0.0405	0.0321	-1.168
0.954	-0.0485	0.0291	-1.593
0.974	-0.0531	0.0274	-1.887

**Master Airscrew
Electric
10×7
Figs. 5.374–5.376**

Run: jb0755
Avg RPM: 3016

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.187	0.0971	0.0722	0.252
0.232	0.0933	0.0726	0.298
0.279	0.0876	0.0717	0.341
0.333	0.0811	0.0707	0.382
0.387	0.0735	0.0691	0.411
0.432	0.0671	0.0677	0.428
0.471	0.0614	0.0660	0.438
0.524	0.0526	0.0633	0.436
0.575	0.0436	0.0600	0.418
0.626	0.0336	0.0559	0.376
0.664	0.0261	0.0522	0.332
0.719	0.0141	0.0463	0.219
0.773	0.0011	0.0401	0.022
0.798	-0.0055	0.0367	-0.121
0.857	-0.0226	0.0287	-0.674
0.908	-0.0367	0.0222	-1.501
0.956	-0.0496	0.0163	-2.912

Run: jb0756
Avg RPM: 4008

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.147	0.1129	0.0728	0.228
0.179	0.1101	0.0732	0.269
0.218	0.1063	0.0736	0.316
0.251	0.0979	0.0735	0.334
0.286	0.0933	0.0733	0.364
0.325	0.0881	0.0726	0.394
0.360	0.0836	0.0718	0.420
0.391	0.0793	0.0710	0.437
0.424	0.0736	0.0694	0.450
0.464	0.0678	0.0685	0.460
0.505	0.0625	0.0673	0.468
0.537	0.0579	0.0662	0.470
0.576	0.0506	0.0637	0.457
0.603	0.0454	0.0614	0.446
0.643	0.0380	0.0584	0.419
0.675	0.0319	0.0555	0.387
0.713	0.0231	0.0511	0.322

Run: jb0757
Avg RPM: 4006

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.603	0.0456	0.0615	0.447
0.638	0.0396	0.0590	0.428
0.677	0.0313	0.0550	0.384
0.714	0.0231	0.0511	0.323

0.742	0.0162	0.0477	0.252
0.784	0.0055	0.0431	0.101
0.820	-0.0046	0.0382	-0.098
0.856	-0.0146	0.0337	-0.371
0.896	-0.0270	0.0284	-0.853
0.926	-0.0355	0.0245	-1.340
0.963	-0.0460	0.0197	-2.251
1.000	-0.0562	0.0151	-3.727
Run: jb0758			
Avg RPM: 4998			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.113	0.1210	0.0724	0.189
0.141	0.1196	0.0733	0.231
0.169	0.1173	0.0740	0.269
0.202	0.1186	0.0745	0.321
0.230	0.1150	0.0749	0.353
0.260	0.1090	0.0747	0.379
0.287	0.1072	0.0752	0.409
0.315	0.1025	0.0752	0.430
0.345	0.0986	0.0749	0.454
0.371	0.0931	0.0741	0.467
0.400	0.0886	0.0734	0.483
0.428	0.0835	0.0726	0.492
0.455	0.0785	0.0717	0.499
0.482	0.0724	0.0703	0.497
0.510	0.0685	0.0694	0.503
0.537	0.0646	0.0684	0.507
0.571	0.0597	0.0671	0.508
Run: jb0759			
Avg RPM: 5009			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.482	0.0722	0.0701	0.496
0.510	0.0683	0.0692	0.503
0.542	0.0634	0.0678	0.506
0.569	0.0597	0.0670	0.507
0.596	0.0550	0.0654	0.501
0.622	0.0503	0.0638	0.490
0.656	0.0420	0.0603	0.457
0.681	0.0374	0.0583	0.437
0.715	0.0299	0.0551	0.388
0.743	0.0242	0.0522	0.344
0.767	0.0178	0.0492	0.278
0.798	0.0088	0.0453	0.156
0.832	-0.0003	0.0411	-0.006
0.860	-0.0086	0.0376	-0.197
0.889	-0.0171	0.0341	-0.447
0.917	-0.0260	0.0303	-0.786
0.946	-0.0340	0.0269	-1.195
0.977	-0.0433	0.0229	-1.843
1.003	-0.0504	0.0199	-2.542
1.032	-0.0592	0.0161	-3.803
1.061	-0.0670	0.0126	-5.621

Run: jb0760	Master Airscrew		
Avg RPM: 5989	Electric		
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.091	0.1288	0.0712	0.165
0.122	0.1270	0.0724	0.214
0.146	0.1256	0.0732	0.250
0.167	0.1240	0.0739	0.281
0.193	0.1220	0.0747	0.315
0.215	0.1201	0.0754	0.343
0.240	0.1170	0.0757	0.372
0.263	0.1147	0.0762	0.396
0.286	0.1118	0.0764	0.419
0.311	0.1087	0.0766	0.441
0.335	0.1051	0.0764	0.461
0.358	0.1018	0.0762	0.478
0.381	0.0978	0.0757	0.492
0.406	0.0938	0.0752	0.506
0.428	0.0901	0.0747	0.516
0.452	0.0859	0.0740	0.524
0.474	0.0815	0.0730	0.529
Run: jb0761			
Avg RPM: 6017			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.406	0.0937	0.0752	0.506
0.433	0.0892	0.0746	0.517
0.455	0.0851	0.0738	0.524
0.475	0.0812	0.0729	0.529
0.497	0.0771	0.0721	0.532
0.520	0.0733	0.0712	0.535
0.543	0.0693	0.0702	0.536
0.570	0.0642	0.0687	0.533
0.598	0.0589	0.0670	0.525
0.619	0.0549	0.0655	0.518
0.641	0.0501	0.0636	0.505
0.671	0.0443	0.0613	0.485
0.692	0.0395	0.0591	0.462
0.714	0.0346	0.0571	0.432
0.741	0.0286	0.0542	0.391
0.762	0.0231	0.0516	0.342
0.783	0.0181	0.0494	0.287
0.814	0.0100	0.0463	0.176
0.833	0.0045	0.0439	0.086
0.854	-0.0017	0.0411	-0.035
0.883	-0.0103	0.0379	-0.240
0.902	-0.0160	0.0357	-0.404
0.925	-0.0227	0.0330	-0.637
0.949	-0.0292	0.0305	-0.906
Run: rd0579			
Avg RPM: 4005			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.133	0.1064	0.0666	0.212
0.159	0.1050	0.0669	0.249
0.196	0.1029	0.0673	0.299
0.229	0.0999	0.0672	0.341
0.257	0.0962	0.0665	0.372
0.291	0.0929	0.0665	0.407
0.326	0.0894	0.0665	0.438
0.358	0.0853	0.0660	0.463
0.389	0.0808	0.0652	0.483
0.423	0.0763	0.0646	0.500
0.459	0.0707	0.0633	0.513
0.491	0.0654	0.0619	0.519
0.519	0.0607	0.0605	0.521
0.553	0.0549	0.0586	0.518
0.583	0.0502	0.0573	0.511
0.618	0.0437	0.0546	0.495
0.650	0.0372	0.0519	0.465
Run: rd0580			
Avg RPM: 3998			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.553	0.0545	0.0587	0.514
0.584	0.0493	0.0569	0.507
0.616	0.0437	0.0548	0.491
0.648	0.0370	0.0520	0.462

0.682	0.0298	0.0491	0.414	0.860	-0.0126	0.0330	-0.328	0.862	-0.0077	0.0359	-0.185
0.715	0.0220	0.0461	0.341	0.888	-0.0196	0.0303	-0.575	0.880	-0.0120	0.0344	-0.307
0.752	0.0115	0.0420	0.206	0.912	-0.0255	0.0280	-0.830				
0.788	0.0012	0.0378	0.026	0.940	-0.0324	0.0253	-1.203				
0.819	-0.0070	0.0344	-0.166	0.966	-0.0386	0.0228	-1.634				
0.849	-0.0141	0.0315	-0.380	0.990	-0.0445	0.0205	-2.150				
0.883	-0.0224	0.0281	-0.701	1.017	-0.0510	0.0178	-2.912				
0.915	-0.0305	0.0249	-1.122								
0.946	-0.0379	0.0218	-1.647								
0.979	-0.0461	0.0183	-2.461								
1.009	-0.0534	0.0153	-3.528								
1.044	-0.0631	0.0112	-5.872								
1.078	-0.0725	0.0074	-10.604								
Run: rd0581											
Avg RPM: 5007											
<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>								
0.105	0.1139	0.0682	0.175	0.092	0.1190	0.0678	0.161	0.157	0.0531	0.0331	0.252
0.127	0.1130	0.0684	0.209	0.111	0.1174	0.0683	0.191	0.202	0.0464	0.0319	0.293
0.156	0.1103	0.0683	0.253	0.128	0.1146	0.0680	0.215	0.241	0.0406	0.0307	0.319
0.181	0.1083	0.0684	0.287	0.153	0.1126	0.0681	0.253	0.280	0.0344	0.0291	0.331
0.209	0.1056	0.0683	0.322	0.177	0.1108	0.0684	0.287	0.328	0.0260	0.0266	0.320
0.232	0.1034	0.0684	0.351	0.199	0.1099	0.0688	0.317	0.366	0.0181	0.0240	0.277
0.261	0.1003	0.0682	0.384	0.222	0.1076	0.0687	0.348	0.405	0.0101	0.0211	0.195
0.288	0.0972	0.0680	0.411	0.242	0.1051	0.0686	0.372	0.445	0.0016	0.0177	0.040
0.315	0.0936	0.0677	0.435	0.266	0.1023	0.0685	0.397	0.482	-0.0060	0.0147	-0.197
0.340	0.0902	0.0672	0.457	0.288	0.0991	0.0680	0.420	0.529	-0.0161	0.0100	-0.849
0.366	0.0874	0.0671	0.476	0.310	0.0968	0.0681	0.440				
0.388	0.0842	0.0666	0.491	0.332	0.0940	0.0678	0.461				
0.416	0.0804	0.0659	0.507	0.355	0.0913	0.0675	0.480				
0.443	0.0767	0.0653	0.520	0.375	0.0881	0.0669	0.494				
0.468	0.0730	0.0645	0.529	0.397	0.0849	0.0664	0.508				
0.492	0.0692	0.0636	0.535	0.419	0.0823	0.0661	0.522				
0.523	0.0641	0.0621	0.540	0.440	0.0794	0.0656	0.533				
Run: rd0582											
Avg RPM: 5006											
<i>J</i>	<i>C_T</i>	<i>C_P</i>	<i>η</i>								
0.440	0.0768	0.0651	0.519	0.484	0.0726	0.0640	0.549	0.454	0.0046	0.0189	0.111
0.467	0.0728	0.0641	0.530	0.505	0.0692	0.0630	0.555	0.481	-0.0014	0.0165	-0.041
0.494	0.0687	0.0632	0.537	0.532	0.0651	0.0620	0.559	0.515	-0.0094	0.0130	-0.373
0.518	0.0645	0.0619	0.539	0.553	0.0619	0.0611	0.560	0.547	-0.0166	0.0093	-0.974
0.542	0.0606	0.0608	0.540	0.573	0.0587	0.0600	0.560				
0.572	0.0552	0.0589	0.536	0.597	0.0544	0.0585	0.555				
0.595	0.0512	0.0576	0.529	0.617	0.0509	0.0572	0.549				
0.628	0.0449	0.0551	0.511	0.641	0.0462	0.0554	0.535				
0.652	0.0400	0.0531	0.491	0.661	0.0424	0.0538	0.520				
0.672	0.0361	0.0517	0.470	0.685	0.0376	0.0521	0.495				
0.701	0.0294	0.0488	0.421	0.700	0.0342	0.0508	0.472				
0.723	0.0243	0.0470	0.374	0.731	0.0270	0.0480	0.412				
0.759	0.0140	0.0432	0.246	0.749	0.0224	0.0463	0.362				
0.778	0.0088	0.0413	0.165	0.774	0.0155	0.0441	0.271				
0.809	-0.0002	0.0377	-0.005	0.793	0.0101	0.0424	0.189				
0.829	-0.0043	0.0363	-0.099	0.819	0.0027	0.0396	0.056				
				0.837	-0.0018	0.0380	-0.039				

0.423	0.0155	0.0229	0.287	0.531	0.0261	0.0391	0.355	0.398	0.0644	0.0529	0.484
0.454	0.0081	0.0202	0.182	0.559	0.0205	0.0365	0.315	0.424	0.0600	0.0521	0.488
0.478	0.0028	0.0181	0.074	0.608	0.0085	0.0304	0.171	0.450	0.0548	0.0506	0.488
0.507	-0.0042	0.0150	-0.141	0.648	-0.0012	0.0251	-0.031	0.477	0.0497	0.0490	0.484
0.539	-0.0118	0.0114	-0.559	0.682	-0.0096	0.0199	-0.329	0.503	0.0443	0.0471	0.472

Run: rd0898

Avg RPM: 6894

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.093	0.0706	0.0334	0.197
0.119	0.0682	0.0336	0.242
0.141	0.0659	0.0336	0.277
0.163	0.0635	0.0334	0.309
0.188	0.0602	0.0334	0.340
0.212	0.0567	0.0329	0.366
0.235	0.0531	0.0323	0.387
0.256	0.0502	0.0319	0.402
0.283	0.0459	0.0313	0.416
0.304	0.0425	0.0306	0.422
0.328	0.0383	0.0297	0.424
0.347	0.0348	0.0287	0.420
0.369	0.0302	0.0276	0.405
0.396	0.0249	0.0260	0.380
0.418	0.0203	0.0245	0.346
0.440	0.0154	0.0229	0.296
0.463	0.0103	0.0210	0.228

Run: rd0899

Avg RPM: 6922

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.391	0.0258	0.0263	0.384
0.415	0.0209	0.0246	0.352
0.441	0.0151	0.0226	0.294
0.464	0.0101	0.0208	0.224
0.484	0.0052	0.0189	0.133
0.512	-0.0013	0.0160	-0.041
0.535	-0.0071	0.0133	-0.286

Master Airscrew

G/F

9×6

Figs. 5.392–5.394

Run: rd0887

Avg RPM: 4000

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.160	0.0871	0.0537	0.259
0.202	0.0828	0.0540	0.310
0.239	0.0783	0.0541	0.347
0.279	0.0732	0.0538	0.379
0.325	0.0659	0.0528	0.406
0.358	0.0605	0.0516	0.420
0.401	0.0523	0.0493	0.425
0.448	0.0432	0.0462	0.418
0.475	0.0384	0.0445	0.410

0.531	0.0261	0.0391	0.355
0.559	0.0205	0.0365	0.315
0.608	0.0085	0.0304	0.171
0.648	-0.0012	0.0251	-0.031
0.682	-0.0096	0.0199	-0.329
0.720	-0.0190	0.0145	-0.945
0.763	-0.0296	0.0081	-2.800

0.398	0.0644	0.0529	0.484
0.424	0.0600	0.0521	0.488
0.450	0.0548	0.0506	0.488
0.477	0.0497	0.0490	0.484
0.503	0.0443	0.0471	0.472
0.530	0.0386	0.0451	0.454

Run: rd0891

Avg RPM: 6028

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.130	0.0943	0.0532	0.231
0.161	0.0918	0.0537	0.275
0.194	0.0883	0.0541	0.317
0.229	0.0844	0.0543	0.357
0.259	0.0809	0.0543	0.385
0.292	0.0769	0.0543	0.414
0.323	0.0724	0.0540	0.434
0.355	0.0679	0.0536	0.450
0.385	0.0628	0.0526	0.461
0.415	0.0573	0.0512	0.464
0.448	0.0502	0.0490	0.459
0.482	0.0435	0.0467	0.450
0.516	0.0362	0.0438	0.426
0.544	0.0296	0.0409	0.395
0.577	0.0216	0.0372	0.335
0.608	0.0137	0.0332	0.250
0.640	0.0053	0.0287	0.117

0.214	0.0895	0.0540	0.355
0.238	0.0871	0.0545	0.381
0.261	0.0843	0.0544	0.404
0.282	0.0817	0.0543	0.424
0.309	0.0783	0.0545	0.444
0.328	0.0756	0.0542	0.458
0.356	0.0720	0.0540	0.475
0.374	0.0692	0.0534	0.484
0.398	0.0658	0.0531	0.493
0.425	0.0617	0.0526	0.499
0.447	0.0578	0.0516	0.501
0.471	0.0539	0.0506	0.500

Run: rd0890

Avg RPM: 6045

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.104	0.0987	0.0523	0.197
0.133	0.0965	0.0530	0.242
0.156	0.0944	0.0533	0.277
0.188	0.0914	0.0538	0.320
0.215	0.0887	0.0542	0.352
0.241	0.0856	0.0543	0.379
0.267	0.0823	0.0544	0.405
0.295	0.0790	0.0544	0.428
0.318	0.0759	0.0542	0.445
0.345	0.0721	0.0540	0.461
0.372	0.0682	0.0535	0.474

0.400	0.0646	0.0526	0.491
0.426	0.0613	0.0524	0.498
0.448	0.0575	0.0513	0.501
0.472	0.0533	0.0504	0.499
0.492	0.0494	0.0492	0.495
0.516	0.0451	0.0477	0.487
0.542	0.0388	0.0454	0.464
0.565	0.0335	0.0432	0.438
0.586	0.0280	0.0407	0.403
0.608	0.0228	0.0379	0.365

0.635	0.0149	0.0338	0.280
0.657	0.0097	0.0314	0.203
0.682	0.0030	0.0279	0.072
0.707	-0.0038	0.0241	-0.112
0.733	-0.0110	0.0198	-0.406
0.753	-0.0161	0.0166	-0.729
0.781	-0.0241	0.0115	-1.643

Master Airscrew

G/F

10×6

Figs. 5.398–5.400

Run: kj0730

Avg RPM: 4004

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.143	0.0917	0.0488	0.269
0.179	0.0877	0.0491	0.319
0.215	0.0833	0.0494	0.362
0.254	0.0779	0.0494	0.400
0.288	0.0726	0.0488	0.428
0.324	0.0662	0.0476	0.451
0.359	0.0596	0.0460	0.465
0.394	0.0526	0.0441	0.470
0.430	0.0453	0.0416	0.469
0.469	0.0361	0.0377	0.450
0.505	0.0280	0.0340	0.415
0.535	0.0209	0.0305	0.366
0.571	0.0124	0.0263	0.271
0.607	0.0036	0.0214	0.102
0.643	-0.0051	0.0167	-0.196
0.685	-0.0158	0.0111	-0.975

Run: kj0731

Avg RPM: 5007

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.114	0.0956	0.0478	0.227
0.143	0.0931	0.0483	0.276
0.171	0.0904	0.0485	0.318
0.201	0.0868	0.0487	0.359
0.232	0.0830	0.0488	0.396
0.259	0.0793	0.0487	0.423
0.286	0.0756	0.0486	0.445
0.314	0.0713	0.0482	0.464
0.342	0.0670	0.0476	0.480
0.368	0.0622	0.0465	0.492
0.400	0.0558	0.0448	0.498
0.426	0.0509	0.0434	0.500
0.457	0.0444	0.0411	0.493
0.481	0.0394	0.0392	0.483
0.515	0.0314	0.0357	0.451
0.542	0.0246	0.0325	0.410
0.571	0.0173	0.0289	0.342

Run: kj0732

Avg RPM: 4996

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.483	0.0384	0.0388	0.478
0.515	0.0310	0.0355	0.449
0.542	0.0245	0.0325	0.410
0.571	0.0170	0.0287	0.339
0.599	0.0099	0.0250	0.237
0.628	0.0028	0.0213	0.084
0.658	-0.0043	0.0174	-0.164
0.684	-0.0115	0.0137	-0.574
0.712	-0.0176	0.0097	-1.286

Run: kt0735

Avg RPM: 6490

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.085	0.0989	0.0471	0.179
0.109	0.0972	0.0475	0.223
0.132	0.0951	0.0477	0.263
0.155	0.0930	0.0479	0.301
0.177	0.0906	0.0480	0.333
0.199	0.0884	0.0482	0.364
0.222	0.0857	0.0483	0.395
0.245	0.0828	0.0483	0.420
0.267	0.0801	0.0482	0.443
0.286	0.0774	0.0480	0.462
0.311	0.0738	0.0478	0.481
0.333	0.0706	0.0475	0.495
0.351	0.0678	0.0471	0.506
0.377	0.0636	0.0463	0.517
0.394	0.0607	0.0458	0.523
0.414	0.0571	0.0449	0.527
0.437	0.0532	0.0439	0.529

Run: kj0733

Avg RPM: 6030

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.092	0.0983	0.0473	0.191
0.121	0.0959	0.0478	0.243
0.144	0.0938	0.0479	0.282
0.165	0.0917	0.0481	0.315
0.192	0.0889	0.0483	0.353
0.214	0.0862	0.0482	0.382
0.239	0.0832	0.0483	0.411
0.260	0.0803	0.0483	0.433
0.287	0.0769	0.0482	0.457
0.311	0.0735	0.0480	0.476
0.330	0.0706	0.0477	0.489
0.354	0.0669	0.0471	0.502
0.381	0.0622	0.0463	0.511
0.405	0.0578	0.0453	0.518
0.427	0.0538	0.0441	0.521
0.450	0.0493	0.0427	0.519
0.472	0.0449	0.0412	0.515

Run: kt0736

Avg RPM: 6519

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.373	0.0643	0.0466	0.515
0.396	0.0605	0.0459	0.523
0.416	0.0567	0.0448	0.527
0.437	0.0527	0.0436	0.528
0.457	0.0492	0.0427	0.527
0.483	0.0440	0.0408	0.520
0.504	0.0394	0.0391	0.508
0.524	0.0351	0.0372	0.494
0.549	0.0288	0.0344	0.460
0.568	0.0239	0.0321	0.423
0.592	0.0178	0.0291	0.362
0.612	0.0131	0.0269	0.297
0.636	0.0073	0.0240	0.194
0.660	0.0019	0.0211	0.059
0.684	-0.0044	0.0179	-0.168
0.701	-0.0082	0.0156	-0.370
0.723	-0.0140	0.0121	-0.834
0.748	-0.0206	0.0079	-1.944

Master Airscrew			
G/F			
10×8			
Figs. 5.404–5.406			
Run: pg0720			
Avg RPM: 3005			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.190	0.1116	0.0698	0.303
0.240	0.1055	0.0704	0.360
0.285	0.0997	0.0708	0.401
0.340	0.0910	0.0704	0.440
0.386	0.0831	0.0691	0.463
0.430	0.0742	0.0668	0.478
0.470	0.0666	0.0645	0.485
0.525	0.0545	0.0596	0.480
0.568	0.0455	0.0555	0.466
0.626	0.0320	0.0485	0.413
0.657	0.0254	0.0448	0.372
0.712	0.0115	0.0359	0.228
0.764	-0.0012	0.0277	-0.033
0.811	-0.0128	0.0200	-0.521
0.860	-0.0245	0.0125	-1.680
Run: pg0721			
Avg RPM: 3989			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.144	0.1168	0.0671	0.250
0.180	0.1140	0.0681	0.302
0.217	0.1102	0.0688	0.349
0.250	0.1069	0.0694	0.386
0.292	0.1018	0.0697	0.426
0.327	0.0970	0.0698	0.454
0.362	0.0921	0.0697	0.479
0.395	0.0866	0.0691	0.496
0.430	0.0808	0.0681	0.510
0.464	0.0746	0.0668	0.518
0.494	0.0679	0.0645	0.520
0.536	0.0599	0.0621	0.516
0.573	0.0508	0.0580	0.502
0.603	0.0442	0.0549	0.486
0.644	0.0345	0.0497	0.447
0.678	0.0259	0.0448	0.392
0.714	0.0166	0.0391	0.303
Run: pg0722			
Avg RPM: 3998			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.601	0.0442	0.0548	0.485
0.644	0.0341	0.0495	0.444
0.685	0.0238	0.0435	0.375
0.715	0.0163	0.0389	0.300
0.748	0.0079	0.0337	0.174
0.782	-0.0014	0.0281	-0.040
0.821	-0.0110	0.0220	-0.409
0.856	-0.0205	0.0155	-1.134
0.901	-0.0321	0.0070	-4.138
Run: pg0723			
Avg RPM: 4994			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.115	0.1170	0.0653	0.207
0.144	0.1152	0.0660	0.252
0.171	0.1143	0.0669	0.292
0.202	0.1121	0.0679	0.334
0.229	0.1095	0.0682	0.368
0.260	0.1063	0.0687	0.402
0.288	0.1029	0.0687	0.431
0.319	0.0995	0.0692	0.459
0.347	0.0960	0.0693	0.481
0.375	0.0916	0.0690	0.498
0.404	0.0874	0.0687	0.514
0.431	0.0832	0.0683	0.525
0.455	0.0793	0.0677	0.533
0.484	0.0738	0.0663	0.539
0.510	0.0692	0.0651	0.542
0.542	0.0626	0.0628	0.540
0.573	0.0563	0.0605	0.532
Run: pg0724			
Avg RPM: 5003			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.487	0.0733	0.0662	0.539
0.515	0.0680	0.0646	0.542
0.540	0.0632	0.0631	0.541
0.570	0.0567	0.0606	0.533
0.595	0.0512	0.0583	0.523
0.627	0.0437	0.0547	0.501
0.649	0.0385	0.0521	0.480
0.685	0.0291	0.0469	0.426
0.713	0.0219	0.0426	0.367
0.747	0.0132	0.0374	0.264
0.776	0.0052	0.0324	0.124
0.804	-0.0025	0.0279	-0.071
0.833	-0.0101	0.0229	-0.367
0.860	-0.0174	0.0178	-0.839
0.890	-0.0255	0.0120	-1.894
0.919	-0.0330	0.0063	-4.826
Run: pg0725			
Avg RPM: 5969			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.096	0.1164	0.0639	0.175
0.121	0.1156	0.0648	0.216
0.144	0.1143	0.0653	0.252
0.168	0.1132	0.0659	0.288
0.191	0.1120	0.0666	0.321
0.218	0.1103	0.0673	0.357
0.241	0.1082	0.0677	0.385
Run: rd0594			
Avg RPM: 2992			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.175	0.0306	0.0212	0.253
0.220	0.0243	0.0198	0.269
0.260	0.0171	0.0182	0.245
0.316	0.0066	0.0155	0.135
0.351	0.0007	0.0139	0.017
0.402	-0.0088	0.0106	-0.335
0.449	-0.0179	0.0071	-1.131

Master Airscrew

G/F

11×4

Figs. 5.410–5.412

Run: rd0595				Master Airscrew			
Avg RPM: 3998				G/F			
<i>J</i>	C_T	C_P	η	11×6			
0.129	0.0446	0.0226	0.255	Figs. 5.416–5.418			
0.164	0.0391	0.0219	0.294				
0.195	0.0338	0.0210	0.313				
0.227	0.0279	0.0200	0.318				
0.267	0.0207	0.0185	0.299				
0.300	0.0143	0.0170	0.253				
0.332	0.0081	0.0153	0.176				
0.365	0.0016	0.0133	0.043				
0.400	-0.0057	0.0109	-0.209				
0.429	-0.0123	0.0083	-0.638				
Run: rd0596				Run: kt0690			
Avg RPM: 3006				Avg RPM: 3006			
<i>J</i>	C_T	C_P	η	<i>J</i>	C_T	C_P	η
0.175	0.0749	0.0402	0.325	0.175	0.0749	0.0402	0.325
0.217	0.0690	0.0397	0.378	0.217	0.0690	0.0397	0.378
0.261	0.0600	0.0383	0.408	0.261	0.0600	0.0383	0.408
0.308	0.0513	0.0363	0.435	0.308	0.0513	0.0363	0.435
0.357	0.0410	0.0333	0.439	0.357	0.0410	0.0333	0.439
0.394	0.0341	0.0309	0.435	0.394	0.0341	0.0309	0.435
0.440	0.0243	0.0272	0.393	0.440	0.0243	0.0272	0.393
0.488	0.0124	0.0223	0.272	0.488	0.0124	0.0223	0.272
0.531	0.0024	0.0181	0.071	0.531	0.0024	0.0181	0.071
0.575	-0.0081	0.0133	-0.350	0.575	-0.0081	0.0133	-0.350
0.619	-0.0186	0.0080	-1.440	0.619	-0.0186	0.0080	-1.440
Run: rd0596				Run: kt0691			
Avg RPM: 5000				Avg RPM: 4006			
<i>J</i>	C_T	C_P	η	<i>J</i>	C_T	C_P	η
0.128	0.0841	0.0395	0.273	0.128	0.0841	0.0395	0.273
0.163	0.0807	0.0398	0.331	0.163	0.0807	0.0398	0.331
0.198	0.0770	0.0399	0.383	0.198	0.0770	0.0399	0.383
0.229	0.0732	0.0398	0.421	0.229	0.0732	0.0398	0.421
0.264	0.0689	0.0396	0.459	0.264	0.0689	0.0396	0.459
0.300	0.0631	0.0390	0.485	0.300	0.0631	0.0390	0.485
0.330	0.0572	0.0375	0.503	0.330	0.0572	0.0375	0.503
0.361	0.0506	0.0359	0.509	0.361	0.0506	0.0359	0.509
0.394	0.0435	0.0337	0.508	0.394	0.0435	0.0337	0.508
0.426	0.0357	0.0312	0.489	0.426	0.0357	0.0312	0.489
0.458	0.0270	0.0278	0.445	0.458	0.0270	0.0278	0.445
0.498	0.0169	0.0240	0.351	0.498	0.0169	0.0240	0.351
0.524	0.0105	0.0214	0.256	0.524	0.0105	0.0214	0.256
0.559	0.0015	0.0175	0.049	0.559	0.0015	0.0175	0.049
0.590	-0.0067	0.0135	-0.291	0.590	-0.0067	0.0135	-0.291
0.622	-0.0150	0.0093	-1.011	0.622	-0.0150	0.0093	-1.011
Run: pg0597				Run: kt0692			
Avg RPM: 6002				Avg RPM: 5000			
<i>J</i>	C_T	C_P	η	<i>J</i>	C_T	C_P	η
0.088	0.0585	0.0233	0.220	0.105	0.0873	0.0389	0.235
0.113	0.0554	0.0232	0.270	0.131	0.0851	0.0391	0.285
0.132	0.0527	0.0229	0.303	0.157	0.0828	0.0395	0.328
0.152	0.0494	0.0225	0.333	0.184	0.0799	0.0395	0.373
0.175	0.0458	0.0221	0.364	0.212	0.0769	0.0395	0.412
0.198	0.0423	0.0217	0.388	0.239	0.0737	0.0395	0.445
0.220	0.0387	0.0211	0.403	0.266	0.0702	0.0393	0.475
0.243	0.0347	0.0205	0.412	0.291	0.0670	0.0391	0.498
0.264	0.0309	0.0197	0.414	0.317	0.0633	0.0387	0.519
0.287	0.0267	0.0189	0.404	0.343	0.0597	0.0382	0.535
0.310	0.0222	0.0179	0.384	0.369	0.0554	0.0373	0.548
0.331	0.0178	0.0168	0.352				
0.349	0.0140	0.0158	0.310				
0.375	0.0081	0.0140	0.216				
0.393	0.0039	0.0127	0.120				
0.416	-0.0018	0.0108	-0.069				
0.440	-0.0080	0.0086	-0.412				
Run: kt0693				Run: kt0694			
Avg RPM: 5000				Avg RPM: 6011			
<i>J</i>	C_T	C_P	η	<i>J</i>	C_T	C_P	η
0.089	0.0893	0.0385	0.206	0.089	0.0893	0.0385	0.206
0.111	0.0875	0.0387	0.250	0.111	0.0875	0.0387	0.250
0.131	0.0859	0.0390	0.289	0.131	0.0859	0.0390	0.289
0.155	0.0839	0.0392	0.331	0.155	0.0839	0.0392	0.331
0.176	0.0818	0.0393	0.365	0.176	0.0818	0.0393	0.365
0.197	0.0793	0.0393	0.398	0.197	0.0793	0.0393	0.398
0.219	0.0765	0.0392	0.428	0.219	0.0765	0.0392	0.428
0.242	0.0741	0.0393	0.457	0.242	0.0741	0.0393	0.457
0.264	0.0715	0.0392	0.481	0.264	0.0715	0.0392	0.481
0.286	0.0686	0.0390	0.502	0.286	0.0686	0.0390	0.502
0.308	0.0657	0.0387	0.523	0.308	0.0657	0.0387	0.523
0.327	0.0631	0.0383	0.539	0.327	0.0631	0.0383	0.539
0.348	0.0601	0.0379	0.551	0.348	0.0601	0.0379	0.551
0.369	0.0560	0.0369	0.560	0.369	0.0560	0.0369	0.560
0.393	0.0507	0.0353	0.564	0.393	0.0507	0.0353	0.564
0.414	0.0462	0.0338	0.565	0.414	0.0462	0.0338	0.565
0.433	0.0414	0.0321	0.558	0.433	0.0414	0.0321	0.558
Run: kt0695				Run: kt0695			
Avg RPM: 6019				<i>J</i>	C_T	C_P	η
<i>J</i>	C_T	C_P	η	0.369	0.0558	0.0368	0.559
0.394	0.0506	0.0353	0.565	0.394	0.0506	0.0353	0.565
0.414	0.0459	0.0337	0.564	0.414	0.0459	0.0337	0.564
0.434	0.0412	0.0321	0.557	0.434	0.0412	0.0321	0.557
0.462	0.0352	0.0303	0.537	0.462	0.0352	0.0303	0.537
0.481	0.0315	0.0291	0.521	0.481	0.0315	0.0291	0.521
0.502	0.0270	0.0275	0.493	0.502	0.0270	0.0275	0.493
0.529	0.0208	0.0252	0.437	0.529	0.0208	0.0252	0.437
0.547	0.0165	0.0234	0.385	0.547	0.0165	0.0234	0.385
0.567	0.0116	0.0213	0.308	0.567	0.0116	0.0213	0.308
0.588	0.0064	0.0190	0.197	0.588	0.0064	0.0190	0.197

0.615	-0.0010	0.0154	-0.040	0.265	0.0743	0.0422	0.467	0.480	0.0398	0.0348	0.549				
0.636	-0.0067	0.0126	-0.339	0.291	0.0708	0.0418	0.492	0.500	0.0354	0.0332	0.533				
0.658	-0.0130	0.0093	-0.923	0.314	0.0672	0.0413	0.510	0.524	0.0300	0.0313	0.502				
<hr/>															
Master Airscrew															
G/F															
11×7															
Figs. 5.422–5.424															
Run: rd0587				0.341	0.0629	0.0406	0.528	0.551	0.0238	0.0289	0.453				
Avg RPM: 3004				0.366	0.0583	0.0396	0.539	0.570	0.0191	0.0269	0.404				
				0.393	0.0527	0.0383	0.541	0.595	0.0126	0.0241	0.311				
				0.418	0.0483	0.0373	0.542	0.612	0.0082	0.0220	0.228				
				0.445	0.0424	0.0355	0.532	0.637	0.0011	0.0186	0.038				
				0.477	0.0356	0.0333	0.510	0.658	-0.0053	0.0153	-0.229				
				0.498	0.0309	0.0317	0.486	0.680	-0.0116	0.0120	-0.658				
				0.527	0.0240	0.0290	0.435	0.702	-0.0182	0.0084	-1.523				
<hr/>															
Run: rd0590															
Avg RPM: 4998															
				0.446	0.0420	0.0353	0.530	0.570	0.0191	0.0269	0.404				
				0.471	0.0368	0.0337	0.513	0.595	0.0126	0.0241	0.311				
				0.498	0.0306	0.0315	0.483	0.612	0.0082	0.0220	0.228				
				0.524	0.0244	0.0292	0.438	0.637	0.0011	0.0186	0.038				
				0.550	0.0181	0.0267	0.373	0.658	-0.0053	0.0153	-0.229				
				0.576	0.0112	0.0236	0.273	0.680	-0.0116	0.0120	-0.658				
				0.602	0.0043	0.0205	0.128	0.702	-0.0182	0.0084	-1.523				
				0.628	-0.0026	0.0172	-0.094	<hr/>							
				0.660	-0.0118	0.0124	-0.629								
				0.686	-0.0191	0.0085	-1.545								
<hr/>															
Run: rd0588															
Avg RPM: 4003															
				0.131	0.0864	0.0419	0.271	0.175	0.0970	0.0533	0.319				
				0.163	0.0834	0.0421	0.322	0.219	0.0926	0.0537	0.379				
				0.198	0.0794	0.0422	0.373	0.261	0.0881	0.0538	0.427				
				0.227	0.0755	0.0419	0.410	0.310	0.0823	0.0540	0.473				
				0.264	0.0701	0.0413	0.448	0.353	0.0761	0.0532	0.505				
				0.300	0.0641	0.0403	0.477	0.395	0.0699	0.0523	0.527				
				0.330	0.0590	0.0392	0.496	0.439	0.0605	0.0499	0.532				
				0.361	0.0531	0.0378	0.507	0.480	0.0514	0.0468	0.528				
				0.393	0.0464	0.0359	0.508	0.529	0.0397	0.0420	0.500				
				0.427	0.0391	0.0338	0.494	0.561	0.0337	0.0394	0.479				
				0.465	0.0310	0.0312	0.462	0.612	0.0214	0.0337	0.389				
				0.497	0.0241	0.0287	0.418	0.657	0.0103	0.0282	0.240				
				0.529	0.0166	0.0257	0.342	0.706	-0.0026	0.0212	-0.086				
				0.561	0.0092	0.0225	0.230	0.746	-0.0129	0.0150	-0.638				
				0.590	0.0025	0.0195	0.077	0.780	-0.0211	0.0100	-1.646				
				0.619	-0.0052	0.0157	-0.206	<hr/>							
				0.655	-0.0143	0.0109	-0.855								
<hr/>															
Run: rd0589															
Avg RPM: 5006															
				0.105	0.0915	0.0417	0.230	0.132	0.1022	0.0519	0.259				
				0.134	0.0888	0.0420	0.284	0.164	0.0998	0.0525	0.311				
				0.161	0.0859	0.0422	0.329	0.327	0.0674	0.0413	0.534				
				0.183	0.0838	0.0423	0.362	0.350	0.0637	0.0407	0.549				
				0.209	0.0811	0.0424	0.400	0.371	0.0598	0.0398	0.558				
				0.236	0.0779	0.0424	0.435	0.392	0.0565	0.0391	0.566				
				0.415	0.0522	0.0382	0.567	0.415	0.0485	0.0373	0.567				
				0.436	0.0485	0.0373	0.567	0.436	0.0828	0.0541	0.509				
				0.467	0.0458	0.0373	0.567	0.467	0.0786	0.0539	0.533				
				0.498	0.0432	0.0373	0.567	0.498	0.0747	0.0535	0.550				
				0.529	0.0406	0.0373	0.567	0.529	0.0688	0.0525	0.564				
				0.561	0.0379	0.0373	0.567	0.561	0.0639	0.0513	0.570				
				0.592	0.0353	0.0373	0.567	0.592	0.0554	0.0488	0.566				
				0.623	0.0327	0.0373	0.567	0.623	0.0498	0.0469	0.559				
				0.655	0.0301	0.0373	0.567	0.655	0.0428	0.0442	0.539				
				0.686	0.0275	0.0373	0.567	0.686	0.0352	0.0410	0.505				
<hr/>															
Run: rd0592															
Avg RPM: 6003															
				0.371	0.0598	0.0398	0.557	0.458	0.0639	0.0513	0.570				
				0.397	0.0553	0.0389	0.565	0.499	0.0554	0.0488	0.566				
				0.413	0.0527	0.0383	0.568	0.526	0.0498	0.0469	0.559				
				0.439	0.0479	0.0372	0.566	0.556	0.0428	0.0442	0.539				
				0.458	0.0439	0.0360	0.559	0.588	0.0352	0.0410	0.505				

0.625	0.0248	0.0360	0.430
0.656	0.0168	0.0319	0.345

Run: pg0601

Avg RPM: 3998

J	C_T	C_P	η
0.553	0.0432	0.0444	0.538
0.588	0.0347	0.0408	0.501
0.624	0.0248	0.0361	0.429
0.657	0.0161	0.0317	0.333
0.691	0.0075	0.0271	0.192
0.720	0.0001	0.0230	0.004
0.753	-0.0089	0.0176	-0.382
0.785	-0.0179	0.0120	-1.170
0.820	-0.0277	0.0055	-4.117

Run: pg0602

Avg RPM: 5001

J	C_T	C_P	η
0.103	0.1047	0.0506	0.212
0.135	0.1024	0.0512	0.269
0.160	0.1009	0.0519	0.311
0.185	0.0989	0.0522	0.351
0.211	0.0967	0.0525	0.388
0.238	0.0947	0.0532	0.423
0.266	0.0918	0.0535	0.456
0.289	0.0894	0.0537	0.481
0.316	0.0865	0.0539	0.507
0.341	0.0830	0.0536	0.529
0.368	0.0799	0.0537	0.548
0.394	0.0763	0.0533	0.563
0.419	0.0728	0.0528	0.578
0.445	0.0684	0.0520	0.585
0.471	0.0644	0.0513	0.591
0.497	0.0600	0.0501	0.595
0.525	0.0543	0.0485	0.589

Run: pg0603

Avg RPM: 4998

J	C_T	C_P	η
0.446	0.0683	0.0521	0.585
0.474	0.0637	0.0511	0.590
0.498	0.0597	0.0501	0.593
0.522	0.0548	0.0485	0.589
0.549	0.0496	0.0468	0.581
0.578	0.0437	0.0447	0.564
0.603	0.0371	0.0419	0.533
0.628	0.0306	0.0390	0.493
0.655	0.0238	0.0358	0.435
0.680	0.0170	0.0324	0.357
0.706	0.0095	0.0284	0.237
0.740	0.0002	0.0231	0.008
0.766	-0.0073	0.0186	-0.300
0.790	-0.0140	0.0142	-0.778
0.817	-0.0214	0.0094	-1.864

Run: pg0604
Avg RPM: 5989

J	C_T	C_P	η
0.088	0.1058	0.0499	0.187
0.111	0.1040	0.0502	0.231
0.133	0.1030	0.0508	0.269
0.155	0.1016	0.0513	0.307
0.177	0.0998	0.0516	0.341
0.195	0.0986	0.0521	0.370
0.220	0.0965	0.0525	0.405
0.243	0.0945	0.0529	0.435
0.264	0.0926	0.0532	0.460
0.287	0.0902	0.0533	0.485
0.307	0.0879	0.0535	0.505
0.332	0.0853	0.0536	0.528
0.350	0.0828	0.0534	0.543
0.373	0.0800	0.0533	0.560
0.393	0.0770	0.0529	0.573
0.415	0.0738	0.0525	0.584
0.437	0.0706	0.0520	0.594

Run: pg0605

Avg RPM: 6005

J	C_T	C_P	η
0.372	0.0800	0.0534	0.557
0.396	0.0766	0.0529	0.573
0.416	0.0734	0.0524	0.583
0.441	0.0699	0.0519	0.593
0.461	0.0669	0.0514	0.600
0.478	0.0641	0.0508	0.604
0.502	0.0601	0.0498	0.606
0.521	0.0564	0.0487	0.603
0.545	0.0526	0.0477	0.602
0.565	0.0486	0.0462	0.594
0.594	0.0422	0.0438	0.573
0.612	0.0381	0.0421	0.554
0.637	0.0328	0.0401	0.522
0.657	0.0282	0.0379	0.488
0.676	0.0234	0.0356	0.444
0.704	0.0162	0.0320	0.357
0.724	0.0105	0.0288	0.264
0.746	0.0044	0.0254	0.131
0.768	-0.0016	0.0217	-0.058
0.789	-0.0083	0.0176	-0.370
0.812	-0.0152	0.0132	-0.937
0.831	-0.0212	0.0092	-1.905

Master Airscrew**Scimitar****9×5**

Figs. 5.434–5.436

Run: pg0901

Avg RPM: 4005

J	C_T	C_P	η
0.157	0.0559	0.0439	0.200
0.197	0.0520	0.0434	0.237
0.233	0.0483	0.0428	0.263
0.274	0.0435	0.0419	0.285
0.312	0.0383	0.0404	0.296
0.363	0.0319	0.0387	0.300
0.397	0.0274	0.0370	0.294
0.444	0.0212	0.0348	0.270
0.472	0.0175	0.0335	0.246
0.514	0.0108	0.0305	0.182
0.563	0.0025	0.0268	0.053
0.602	-0.0051	0.0231	-0.134
0.643	-0.0134	0.0190	-0.453
0.681	-0.0210	0.0150	-0.957
0.713	-0.0280	0.0114	-1.760
0.753	-0.0368	0.0066	-4.190

Run: pg0902

Avg RPM: 5013

J	C_T	C_P	η
0.125	0.0630	0.0447	0.176
0.158	0.0589	0.0443	0.210
0.189	0.0549	0.0439	0.236
0.220	0.0516	0.0435	0.260
0.251	0.0481	0.0429	0.282
0.290	0.0432	0.0417	0.300
0.317	0.0395	0.0407	0.307
0.351	0.0353	0.0395	0.313
0.380	0.0312	0.0383	0.311
0.415	0.0268	0.0368	0.302
0.448	0.0225	0.0353	0.285
0.472	0.0192	0.0340	0.266
0.508	0.0138	0.0318	0.220
0.534	0.0092	0.0298	0.165
0.571	0.0024	0.0267	0.051
0.604	-0.0043	0.0236	-0.110
0.639	-0.0112	0.0202	-0.356

Run: pg0903

Avg RPM: 6022

J	C_T	C_P	η
0.104	0.0689	0.0446	0.160
0.133	0.0662	0.0449	0.195
0.160	0.0631	0.0448	0.225
0.184	0.0601	0.0448	0.247
0.213	0.0549	0.0438	0.267

0.237	0.0516	0.0434	0.282	Run: pg0906	0.289	0.0832	0.0635	0.379
0.263	0.0484	0.0429	0.297	Avg RPM: 6816	0.320	0.0777	0.0625	0.398
0.289	0.0451	0.0422	0.309	J	C_T	C_P	η	0.347
0.314	0.0419	0.0414	0.318	0.395	0.0327	0.0387	0.333	0.380
0.341	0.0383	0.0404	0.323	0.420	0.0294	0.0377	0.327	0.410
0.370	0.0344	0.0393	0.324	0.442	0.0264	0.0367	0.318	0.450
0.393	0.0313	0.0382	0.322	0.464	0.0232	0.0356	0.302	0.477
0.422	0.0277	0.0371	0.315	0.486	0.0196	0.0341	0.279	0.509
0.448	0.0240	0.0358	0.300	0.508	0.0156	0.0324	0.245	0.537
0.473	0.0205	0.0345	0.281	0.536	0.0104	0.0301	0.185	0.576
0.500	0.0161	0.0326	0.246	0.557	0.0058	0.0279	0.116	0.598
0.525	0.0116	0.0307	0.198	0.579	0.0010	0.0257	0.023	0.632
				0.610	-0.0054	0.0227	-0.146	
				0.631	-0.0095	0.0207	-0.290	
				0.653	-0.0140	0.0183	-0.501	
				0.680	-0.0195	0.0153	-0.864	
				0.699	-0.0236	0.0130	-1.267	
				0.726	-0.0297	0.0098	-2.195	
				0.744	-0.0339	0.0075	-3.355	
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Master Airscrew								
Scimitar								
9×7								
Figs. 5.440–5.442								
<hr/>								
				Run: pg0908				
				Avg RPM: 4014				
				J	C_T	C_P	η	
				0.158	0.0945	0.0630	0.237	
				0.199	0.0897	0.0633	0.283	
				0.240	0.0840	0.0632	0.319	
				0.274	0.0780	0.0624	0.342	
				0.322	0.0685	0.0600	0.368	
				0.358	0.0627	0.0582	0.386	
				0.397	0.0570	0.0566	0.399	
				0.436	0.0507	0.0546	0.405	
				0.478	0.0442	0.0523	0.404	
				0.521	0.0367	0.0494	0.387	
				0.553	0.0313	0.0474	0.365	
				0.603	0.0215	0.0430	0.302	
				0.633	0.0157	0.0402	0.247	
				0.680	0.0064	0.0357	0.121	
				0.723	-0.0027	0.0314	-0.063	
				0.742	-0.0070	0.0292	-0.177	
				0.792	-0.0185	0.0232	-0.633	
<hr/>								
				Run: pg0909				
				Avg RPM: 5006				
				J	C_T	C_P	η	
				0.125	0.1066	0.0625	0.214	
				0.158	0.1023	0.0630	0.256	
				0.192	0.0979	0.0636	0.295	
				0.224	0.0933	0.0637	0.328	
				0.254	0.0889	0.0638	0.353	

Master Airscrew

Scimitar

10×5

Figs. 5.446–5.448

0.876	-0.0368	0.0140	-2.305	Run: kt0746	0.721	-0.0229	0.0209	-0.188				
0.893	-0.0415	0.0115	-3.230	Avg RPM: 4007	0.757	-0.0304	0.0178	-1.297				
Run: pg0913												
Avg RPM: 6727												
J	C_T	C_P	η	0.143	0.0706	0.0502	0.202	0.783	-0.0366	0.0154	-1.855	
0.092	0.1134	0.0615	0.169	0.180	0.0679	0.0500	0.245	0.812	-0.0431	0.0130	-2.691	
0.119	0.1121	0.0627	0.213	0.216	0.0638	0.0490	0.281	0.842	-0.0495	0.0107	-3.904	
0.142	0.1106	0.0636	0.247	0.253	0.0598	0.0483	0.313	0.871	-0.0561	0.0085	-5.764	
0.165	0.1085	0.0643	0.278	0.289	0.0555	0.0474	0.339	0.898	-0.0622	0.0064	-8.760	
0.188	0.1052	0.0645	0.307	0.327	0.0506	0.0463	0.357	Run: kt0749				
0.215	0.1017	0.0649	0.336	0.361	0.0459	0.0453	0.367	Avg RPM: 6026				
0.238	0.0974	0.0645	0.359	0.394	0.0407	0.0437	0.367	0.094	0.0858	0.0523	0.154	
0.262	0.0943	0.0647	0.381	0.433	0.0345	0.0417	0.358	0.121	0.0833	0.0518	0.195	
0.285	0.0905	0.0645	0.399	0.470	0.0284	0.0398	0.335	0.143	0.0809	0.0515	0.224	
0.310	0.0863	0.0641	0.417	0.505	0.0219	0.0375	0.295	0.166	0.0784	0.0515	0.252	
0.332	0.0825	0.0639	0.429	0.547	0.0136	0.0345	0.216	0.192	0.0753	0.0512	0.283	
0.356	0.0786	0.0633	0.442	0.581	0.0062	0.0316	0.115	0.216	0.0730	0.0509	0.309	
0.377	0.0753	0.0629	0.451	0.614	-0.0007	0.0290	-0.015	0.241	0.0703	0.0506	0.334	
0.403	0.0697	0.0615	0.457	0.649	-0.0089	0.0258	-0.224	0.265	0.0674	0.0502	0.356	
0.425	0.0652	0.0604	0.459	0.691	-0.0190	0.0219	-0.599	0.286	0.0648	0.0499	0.371	
0.448	0.0608	0.0591	0.461	0.729	-0.0280	0.0184	-1.109	0.313	0.0607	0.0492	0.386	
0.470	0.0550	0.0568	0.455	Run: kt0747				0.340	0.0568	0.0484	0.399	
Avg RPM: 5020									0.364	0.0535	0.0478	0.407

J C

0.116 0.0784 0

Avg RPM: 6014				0.220	0.3731	0.3020	0.273	0.450	0.0427	0.0449	0.409
J	C_T	C_P	η	0.142	0.0762	0.0509	0.212	0.456	0.0369	0.0429	0.393
0.403	0.0693	0.0616	0.454	0.169	0.0734	0.0505	0.246	0.479	0.0329	0.0417	0.377
0.425	0.0647	0.0601	0.457	0.202	0.0693	0.0499	0.281				
0.448	0.0601	0.0587	0.459	0.232	0.0660	0.0495	0.310	Run: kt0751			
0.472	0.0551	0.0573	0.454	0.262	0.0624	0.0488	0.335	Avg RPM: 6022			
0.498	0.0492	0.0551	0.444	0.290	0.0589	0.0482	0.354	J	C_T	C_P	η
0.520	0.0447	0.0535	0.434	0.315	0.0559	0.0476	0.369	0.406	0.0464	0.0459	0.410
0.541	0.0402	0.0517	0.421	0.346	0.0514	0.0466	0.382	0.432	0.0418	0.0445	0.407
0.565	0.0354	0.0497	0.402	0.378	0.0467	0.0453	0.389	0.455	0.0374	0.0432	0.395

0.505	0.0274	0.0397	0.348	0.621	0.0050	0.0319	0.097	0.428	0.0639	0.0570	0.480
0.530	0.0228	0.0381	0.316	0.647	-0.0017	0.0292	-0.039	0.459	0.0560	0.0543	0.473
0.553	0.0183	0.0365	0.276	0.667	-0.0064	0.0276	-0.155	0.489	0.0479	0.0515	0.455
0.575	0.0133	0.0347	0.221	0.688	-0.0112	0.0259	-0.297	0.514	0.0426	0.0495	0.442
0.599	0.0080	0.0327	0.146	0.713	-0.0174	0.0234	-0.531	0.547	0.0351	0.0463	0.416
0.624	0.0023	0.0306	0.047	0.733	-0.0214	0.0218	-0.718	0.571	0.0304	0.0441	0.393
0.648	-0.0031	0.0286	-0.071	0.752	-0.0255	0.0203	-0.944				
0.672	-0.0088	0.0265	-0.221	0.781	-0.0320	0.0180	-1.387				
0.702	-0.0159	0.0239	-0.467	0.797	-0.0356	0.0166	-1.710				
0.721	-0.0203	0.0220	-0.666	0.825	-0.0421	0.0143	-2.434				
0.749	-0.0261	0.0198	-0.985	0.840	-0.0456	0.0130	-2.935				
0.768	-0.0303	0.0183	-1.273	0.863	-0.0509	0.0112	-3.920				
0.799	-0.0375	0.0156	-1.925	0.891	-0.0573	0.0090	-5.663				

Master Airscrew
Scimitar
10×7
Figs. 5.452–5.454

Run: kt0752				Run: kt0738				Run: kt0741			
Avg RPM: 6517				Avg RPM: 3997				Avg RPM: 5997			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.087	0.0885	0.0527	0.146	0.146	0.1012	0.0588	0.251	0.097	0.1055	0.0565	0.180
0.110	0.0862	0.0526	0.180	0.182	0.0980	0.0596	0.299	0.120	0.1045	0.0570	0.221
0.132	0.0840	0.0522	0.212	0.216	0.0939	0.0601	0.338	0.146	0.1033	0.0579	0.260
0.155	0.0820	0.0522	0.244	0.252	0.0876	0.0600	0.369	0.170	0.1022	0.0587	0.295
0.177	0.0796	0.0521	0.271	0.294	0.0811	0.0598	0.399	0.194	0.1009	0.0596	0.328
0.200	0.0772	0.0520	0.297	0.330	0.0755	0.0590	0.422	0.219	0.0990	0.0604	0.360
0.223	0.0742	0.0514	0.322	0.363	0.0693	0.0577	0.436	0.243	0.0971	0.0610	0.386
0.246	0.0718	0.0513	0.344	0.395	0.0619	0.0560	0.437	0.267	0.0949	0.0615	0.412
0.268	0.0691	0.0510	0.363	0.430	0.0553	0.0544	0.437	0.292	0.0923	0.0620	0.435
0.287	0.0668	0.0507	0.378	0.469	0.0467	0.0513	0.428	0.315	0.0892	0.0620	0.454
0.308	0.0636	0.0501	0.391	0.507	0.0387	0.0478	0.411	0.339	0.0861	0.0620	0.471
0.332	0.0598	0.0494	0.403	0.545	0.0306	0.0441	0.379	0.363	0.0822	0.0616	0.485
0.355	0.0564	0.0486	0.412	0.577	0.0245	0.0413	0.343	0.384	0.0787	0.0611	0.494
0.376	0.0530	0.0478	0.417	0.615	0.0167	0.0372	0.276	0.407	0.0745	0.0604	0.502
0.397	0.0495	0.0469	0.419	0.648	0.0100	0.0336	0.193	0.431	0.0699	0.0594	0.507
0.419	0.0458	0.0460	0.418	0.684	0.0018	0.0290	0.042	0.454	0.0650	0.0582	0.507
0.440	0.0421	0.0448	0.414	0.721	-0.0061	0.0250	-0.175	0.476	0.0603	0.0567	0.507

Run: kt0753				Run: kt0739				Run: kt0742			
Avg RPM: 6517				Avg RPM: 5011				Avg RPM: 6018			
<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η	<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.376	0.0528	0.0478	0.416	0.114	0.1049	0.0575	0.209	0.407	0.0742	0.0603	0.502
0.400	0.0491	0.0469	0.419	0.148	0.1031	0.0585	0.261	0.431	0.0699	0.0594	0.507
0.420	0.0455	0.0458	0.418	0.174	0.1016	0.0594	0.298	0.454	0.0650	0.0582	0.507
0.441	0.0417	0.0446	0.412	0.203	0.0994	0.0601	0.335	0.476	0.0603	0.0567	0.507
0.462	0.0381	0.0437	0.404	0.234	0.0965	0.0608	0.371				
0.487	0.0336	0.0423	0.387	0.263	0.0930	0.0610	0.401				
0.508	0.0300	0.0411	0.372	0.292	0.0892	0.0611	0.426				
0.529	0.0261	0.0397	0.347	0.319	0.0853	0.0610	0.445				
0.554	0.0207	0.0377	0.304	0.347	0.0797	0.0603	0.459				
0.572	0.0165	0.0361	0.261	0.374	0.0742	0.0594	0.467				
0.598	0.0106	0.0339	0.186	0.402	0.0694	0.0586	0.477				

0.574	0.0330	0.0455	0.417
0.595	0.0276	0.0426	0.385
0.624	0.0209	0.0393	0.331
0.649	0.0151	0.0364	0.270
0.672	0.0101	0.0339	0.201
0.696	0.0042	0.0309	0.095
0.719	-0.0005	0.0284	-0.013
0.749	-0.0081	0.0242	-0.249
0.766	-0.0123	0.0215	-0.436
0.799	-0.0203	0.0167	-0.970
0.821	-0.0257	0.0134	-1.575
0.845	-0.0316	0.0099	-2.707
0.867	-0.0373	0.0064	-5.056

Run: kt0743

Avg RPM: 6498

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.086	0.1060	0.0559	0.162
0.112	0.1044	0.0565	0.207
0.132	0.1037	0.0570	0.240
0.155	0.1028	0.0580	0.274
0.179	0.1016	0.0588	0.309
0.202	0.1007	0.0597	0.341
0.225	0.0989	0.0604	0.369
0.247	0.0970	0.0609	0.394
0.270	0.0948	0.0614	0.416
0.291	0.0931	0.0620	0.437
0.310	0.0910	0.0623	0.453
0.332	0.0883	0.0624	0.470
0.355	0.0851	0.0622	0.485
0.376	0.0818	0.0619	0.497
0.399	0.0779	0.0614	0.506
0.420	0.0739	0.0606	0.512
0.445	0.0696	0.0598	0.519

Run: kt0744

Avg RPM: 6508

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.380	0.0806	0.0615	0.497
0.402	0.0766	0.0610	0.505
0.422	0.0734	0.0605	0.512
0.444	0.0693	0.0596	0.517
0.466	0.0649	0.0582	0.519
0.486	0.0615	0.0575	0.519
0.506	0.0556	0.0551	0.511
0.532	0.0471	0.0518	0.484
0.552	0.0412	0.0494	0.461
0.581	0.0338	0.0459	0.428
0.600	0.0283	0.0433	0.393
0.626	0.0219	0.0400	0.343
0.645	0.0173	0.0376	0.297
0.663	0.0130	0.0354	0.243
0.692	0.0062	0.0320	0.134
0.709	0.0020	0.0298	0.047

0.735	-0.0038	0.0265	-0.107
0.752	-0.0082	0.0239	-0.258
0.779	-0.0152	0.0197	-0.599
0.795	-0.0193	0.0173	-0.888
0.819	-0.0253	0.0136	-1.523
0.844	-0.0315	0.0098	-2.701
0.869	-0.0377	0.0062	-5.319

Master Airscrew

Scimitar

11×6

Figs. 5.458–5.460

Run: kt0697

Avg RPM: 3010

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.172	0.0590	0.0405	0.250
0.216	0.0539	0.0396	0.294
0.255	0.0491	0.0387	0.324
0.303	0.0427	0.0369	0.351
0.343	0.0382	0.0356	0.368
0.400	0.0314	0.0336	0.374
0.436	0.0265	0.0318	0.364
0.485	0.0193	0.0289	0.325
0.527	0.0124	0.0258	0.253
0.575	0.0043	0.0222	0.111
0.600	0.0000	0.0203	0.000
0.653	-0.0103	0.0152	-0.444
0.697	-0.0193	0.0109	-1.234
0.741	-0.0288	0.0062	-3.432

Run: kt0698

Avg RPM: 4004

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.132	0.0690	0.0411	0.222
0.162	0.0660	0.0412	0.260
0.198	0.0615	0.0409	0.298
0.231	0.0571	0.0402	0.327
0.264	0.0528	0.0394	0.353
0.296	0.0486	0.0384	0.374
0.330	0.0433	0.0370	0.387
0.360	0.0395	0.0359	0.397
0.396	0.0349	0.0345	0.401
0.422	0.0318	0.0334	0.401
0.457	0.0270	0.0317	0.389
0.491	0.0225	0.0301	0.367
0.526	0.0155	0.0270	0.303
0.548	0.0120	0.0255	0.257
0.589	0.0044	0.0221	0.118
0.620	-0.0017	0.0195	-0.053
0.653	-0.0078	0.0164	-0.310

Run: kt0699

Avg RPM: 3997

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.555	0.0106	0.0250	0.235
0.588	0.0046	0.0223	0.121
0.620	-0.0018	0.0194	-0.056
0.652	-0.0077	0.0164	-0.305
0.684	-0.0144	0.0131	-0.748
0.717	-0.0213	0.0097	-1.571
0.750	-0.0286	0.0062	-3.441

Run: kt0700

Avg RPM: 5008

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.106	0.0794	0.0409	0.205
0.130	0.0776	0.0413	0.244
0.159	0.0742	0.0414	0.284
0.185	0.0710	0.0416	0.315
0.210	0.0664	0.0412	0.339
0.237	0.0626	0.0411	0.361
0.261	0.0592	0.0407	0.379
0.286	0.0550	0.0399	0.395
0.315	0.0510	0.0391	0.411
0.340	0.0477	0.0384	0.422
0.370	0.0435	0.0373	0.431
0.393	0.0399	0.0362	0.433
0.414	0.0366	0.0351	0.432
0.443	0.0319	0.0335	0.422
0.466	0.0287	0.0323	0.414
0.496	0.0236	0.0303	0.387
0.522	0.0197	0.0288	0.358

Run: kt0701

Avg RPM: 5008

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.441	0.0320	0.0335	0.421
0.466	0.0286	0.0322	0.413
0.495	0.0238	0.0304	0.387
0.522	0.0192	0.0285	0.352
0.542	0.0155	0.0269	0.312
0.575	0.0096	0.0243	0.226
0.593	0.0064	0.0229	0.165
0.625	-0.0003	0.0199	-0.009
0.652	-0.0055	0.0173	-0.208
0.684	-0.0121	0.0141	-0.585
0.709	-0.0179	0.0112	-1.134
0.735	-0.0238	0.0083	-2.102

Run: kt0702

Avg RPM: 5998

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.088	0.0865	0.0409	0.185
0.108	0.0852	0.0413	0.223
0.133	0.0834	0.0417	0.265
0.153	0.0811	0.0419	0.297

0.174	0.0789	0.0423	0.326	0.612	0.0050	0.0229	0.135	0.495	0.0323	0.0349	0.459
0.199	0.0761	0.0423	0.358	0.666	-0.0056	0.0177	-0.212	0.525	0.0272	0.0328	0.435
0.219	0.0740	0.0425	0.382	0.710	-0.0151	0.0131	-0.818				
0.242	0.0707	0.0424	0.403	0.747	-0.0230	0.0091	-1.889				
0.262	0.0663	0.0418	0.416								
0.285	0.0621	0.0413	0.429								
0.306	0.0584	0.0406	0.440								
0.324	0.0549	0.0399	0.445								
0.348	0.0510	0.0392	0.453								
0.369	0.0474	0.0384	0.455								
0.390	0.0446	0.0377	0.461								
0.410	0.0417	0.0368	0.464								
0.434	0.0379	0.0356	0.462								

Run: kt0703

Avg RPM: 6018

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.366	0.0477	0.0384	0.455
0.389	0.0445	0.0375	0.461
0.414	0.0409	0.0366	0.463
0.434	0.0378	0.0355	0.462
0.455	0.0346	0.0344	0.458
0.475	0.0320	0.0334	0.455
0.500	0.0273	0.0315	0.433
0.520	0.0243	0.0304	0.416
0.545	0.0208	0.0291	0.389
0.567	0.0158	0.0270	0.331
0.587	0.0113	0.0250	0.264
0.612	0.0049	0.0222	0.136
0.630	0.0018	0.0206	0.055
0.650	-0.0025	0.0186	-0.087
0.677	-0.0084	0.0158	-0.363
0.698	-0.0128	0.0136	-0.654
0.722	-0.0184	0.0109	-1.220
0.743	-0.0230	0.0086	-1.986

Master Airscrew**Scimitar****11×7**

Figs. 5.464–5.466

Run: jb0681

Avg RPM: 3016

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.173	0.0685	0.0454	0.262
0.216	0.0635	0.0441	0.310
0.263	0.0581	0.0430	0.355
0.305	0.0532	0.0417	0.389
0.352	0.0471	0.0400	0.414
0.401	0.0398	0.0374	0.426
0.437	0.0348	0.0358	0.425
0.485	0.0272	0.0326	0.404
0.524	0.0207	0.0300	0.361
0.581	0.0109	0.0256	0.249

0.612	0.0050	0.0229	0.135	0.495	0.0323	0.0349	0.459
0.666	-0.0056	0.0177	-0.212	0.525	0.0272	0.0328	0.435
0.710	-0.0151	0.0131	-0.818				
0.747	-0.0230	0.0091	-1.889				

Run: jb0686

Avg RPM: 5003

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.446	0.0400	0.0378	0.473
0.472	0.0360	0.0363	0.468
0.499	0.0316	0.0346	0.455
0.522	0.0280	0.0333	0.440
0.552	0.0221	0.0307	0.398
0.579	0.0171	0.0285	0.347
0.608	0.0114	0.0259	0.268
0.637	0.0055	0.0231	0.152

0.326	0.0539	0.0419	0.419	0.662	0.0001	0.0205	0.003
0.369	0.0477	0.0401	0.439	0.683	-0.0043	0.0184	-0.161
0.395	0.0440	0.0388	0.448	0.710	-0.0102	0.0154	-0.472
0.428	0.0394	0.0373	0.451	0.744	-0.0175	0.0117	-1.116
0.459	0.0346	0.0357	0.446	0.769	-0.0228	0.0092	-1.913
0.500	0.0281	0.0332	0.425	0.795	-0.0286	0.0064	-3.555

Run: kt0687

Avg RPM: 6003

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.089	0.0948	0.0457	0.185
0.113	0.0937	0.0463	0.228
0.136	0.0920	0.0471	0.266
0.156	0.0896	0.0476	0.294
0.176	0.0876	0.0480	0.321
0.198	0.0848	0.0480	0.350
0.221	0.0805	0.0476	0.375
0.243	0.0759	0.0468	0.394
0.263	0.0721	0.0463	0.410
0.285	0.0685	0.0456	0.428
0.309	0.0634	0.0446	0.440
0.330	0.0611	0.0442	0.456

0.348	0.0588	0.0437	0.468
0.374	0.0544	0.0425	0.479
0.395	0.0514	0.0417	0.486
0.415	0.0482	0.0408	0.491
0.436	0.0449	0.0397	0.493

Run: kt0688

Avg RPM: 6017

<i>J</i>	<i>C_T</i>	<i>C_P</i>	η
0.369	0.0555	0.0429	0.477
0.395	0.0510	0.0415	0.486
0.417	0.0479	0.0407	0.491
0.436	0.0445	0.0395	0.492
0.457	0.0414	0.0384	0.491
0.487	0.0361	0.0365	0.482
0.503	0.0336	0.0356	0.475
0.528	0.0292	0.0338	0.456
0.552	0.0245	0.0319	0.426
0.572	0.0209	0.0303	0.395

0.591	0.0172	0.0287	0.356	0.591	0.0298	0.0408	0.432	0.752	0.0001	0.0257	0.004
0.617	0.0121	0.0263	0.284	0.612	0.0260	0.0390	0.407	0.786	-0.0077	0.0215	-0.280
0.636	0.0084	0.0245	0.216	0.648	0.0188	0.0356	0.344	0.810	-0.0134	0.0181	-0.600
0.662	0.0022	0.0216	0.068	Run: jb0675				0.836	-0.0192	0.0145	-1.112
0.679	-0.0013	0.0199	-0.044	Avg RPM: 4000				0.862	-0.0256	0.0107	-2.072
0.705	-0.0069	0.0170	-0.287	J	C_T	C_P	η	0.888	-0.0317	0.0071	-3.969
0.726	-0.0117	0.0146	-0.585	0.555	0.0363	0.0437	0.461	Run: jb0678			
0.751	-0.0172	0.0119	-1.086	0.580	0.0320	0.0417	0.444	Avg RPM: 5986			
0.765	-0.0202	0.0105	-1.473	0.613	0.0257	0.0388	0.406	J	C_T	C_P	η
0.794	-0.0266	0.0075	-2.814	0.648	0.0187	0.0354	0.343	0.088	0.1098	0.0534	0.181

Master Airscrew

Scimitar

11×8

Figs. 5.470–5.472

Run: rd0673

Avg RPM: 3010

J	C_T	C_P	η
0.174	0.0926	0.0567	0.284
0.217	0.0850	0.0564	0.327
0.259	0.0775	0.0560	0.359
0.305	0.0703	0.0551	0.390
0.345	0.0645	0.0536	0.415
0.394	0.0570	0.0513	0.438
0.431	0.0522	0.0499	0.450
0.479	0.0448	0.0472	0.455
0.520	0.0385	0.0447	0.449
0.570	0.0297	0.0404	0.418
0.604	0.0240	0.0378	0.384
0.657	0.0140	0.0328	0.280
0.702	0.0051	0.0281	0.128
0.728	0.0002	0.0254	0.005
0.783	-0.0122	0.0186	-0.514
0.826	-0.0217	0.0132	-1.354
0.874	-0.0327	0.0067	-4.286

Run: rd0674

Avg RPM: 3996

J	C_T	C_P	η
0.130	0.1074	0.0561	0.250
0.166	0.1040	0.0570	0.304
0.198	0.1004	0.0577	0.344
0.230	0.0958	0.0579	0.380
0.262	0.0884	0.0572	0.404
0.296	0.0805	0.0562	0.424
0.329	0.0742	0.0554	0.441
0.360	0.0682	0.0543	0.451
0.386	0.0637	0.0533	0.462
0.422	0.0578	0.0518	0.472
0.453	0.0532	0.0502	0.480
0.486	0.0474	0.0482	0.479
0.518	0.0424	0.0463	0.475
0.553	0.0366	0.0438	0.462

0.591	0.0298	0.0408	0.432	0.752	0.0001	0.0257	0.004
0.612	0.0260	0.0390	0.407	0.786	-0.0077	0.0215	-0.280
0.648	0.0188	0.0356	0.344	0.810	-0.0134	0.0181	-0.600
Run: jb0675				0.836	-0.0192	0.0145	-1.112
Avg RPM: 4000				0.862	-0.0256	0.0107	-2.072
				0.888	-0.0317	0.0071	-3.969

Run: jb0678

Avg RPM: 5986

J	C_T	C_P	η
0.555	0.0363	0.0437	0.461
0.580	0.0320	0.0417	0.444
0.613	0.0257	0.0388	0.406
0.648	0.0187	0.0354	0.343
0.680	0.0125	0.0322	0.264
0.714	0.0054	0.0284	0.135
0.745	-0.0011	0.0250	-0.033
0.780	-0.0091	0.0206	-0.346
0.812	-0.0165	0.0163	-0.821
0.846	-0.0240	0.0118	-1.720
0.883	-0.0331	0.0063	-4.647

Run: jb0676

Avg RPM: 4994

J	C_T	C_P	η
0.102	0.1096	0.0545	0.206
0.130	0.1091	0.0555	0.255
0.156	0.1076	0.0564	0.298
0.183	0.1064	0.0576	0.338
0.210	0.1051	0.0586	0.376
0.237	0.1027	0.0594	0.409
0.263	0.1001	0.0599	0.439
0.289	0.0952	0.0594	0.463
0.317	0.0896	0.0588	0.484
0.343	0.0870	0.0589	0.506
0.367	0.0791	0.0571	0.509
0.393	0.0732	0.0557	0.516
0.416	0.0673	0.0542	0.517
0.441	0.0612	0.0529	0.511
0.465	0.0563	0.0513	0.510
0.490	0.0517	0.0498	0.509
0.514	0.0480	0.0486	0.508

Run: jb0679

Avg RPM: 6012

J	C_T	C_P	η
0.370	0.0889	0.0609	0.540
0.399	0.0854	0.0603	0.550
0.410	0.0783	0.0585	0.548
0.436	0.0723	0.0571	0.553
0.453	0.0685	0.0559	0.555
0.475	0.0602	0.0531	0.538
0.495	0.0560	0.0519	0.534
0.514	0.0527	0.0507	0.534
0.541	0.0478	0.0490	0.528
0.560	0.0444	0.0477	0.522
0.589	0.0387	0.0453	0.503
0.607	0.0351	0.0438	0.487
0.631	0.0296	0.0412	0.453
0.651	0.0258	0.0394	0.426
0.675	0.0207	0.0369	0.379
0.693	0.0168	0.0349	0.334
0.718	0.0112	0.0320	0.252
0.737	0.0070	0.0297	0.173
0.761	0.0009	0.0263	0.025

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