

SOFTWARE SETUP

Weights and Ground Services : ENTER VIA DAVE

SAFETY CHECK

Circuit Breakers (Panels 1/2) : CHECKED

Nosewheel Steering : OFF

Hydraulic Pumps : OFF

Landing Gear Lever : DOWN

Flight Spoiler Lever : 0

Slats/Flaps Level : SET TO ACTUAL POSITION

Radars (Both Panels) : OFF

ADG Manual Release : STOWED

EMER FLAP switch : NORMAL

Battery Master : ON

– Batteries : Verify 22 VDC min x 2

APU/AC Electrics : AS REQ'd/Establish

– GPU : Connect if Avail

– APU : Start if no GPU

* FIREX TEST switch : SELECT (FOR 2 SECONDS)

* APU PWR/FUEL switch : ON

* APU START/STOP switch : ON

* AC electrical SYNOPTIC : CHECK

* DC electrical SYNOPTIC : CHECK

Air Conditioning : Establish

– BLEED VALVES switch : AUTO

– L & R PACK switchlights : IN

– RECIRC FAN : ON

IRS : NAV

Gear and safety pins : ON BOARD

Hydraulic Pump 3A : ON

FMS Initialization : COMPLETE

– STATUS page

* ACTIVE DATABASE : CONFIRM

* UTC and DATE : CONFIRM

– POS INIT page

* Airport ICAO identifier : ENTER

* Airport reference position line key : DEPRESS

* SET POS line key : DEPRESS

– VOR CONTROL

* VOR and DME USAGE : CHECK ENABLED

* VORS : INHIBIT AS REQUIRED

– GPS CONTROL

* GPS : CHECK ENABLED

* Satellites : DESELECT AS REQUIRED

– FMS CONTROL

* FMS DATA KEY : LEFT

– DEFAULTS

* Climb speed : 290/.70-.74

* Cruise speed : 290/.74

* Descent speed : .74/290

* Descent angle : 3.0

* Fuel flow correction : 0.0

– MFD MENU page

* PF window : VNAV

* PM window : ON

* SPEED, ALTITUDE, and RNG TO ALT : SELECT

Safety Check

Circuit Breakers	CLOSED
N/W STRG	OFF
HYDRAULIC Pumps	OFF
LDG GEAR Lever	DN
FLIGHT SPOILER Lever	0
SLATS/FLAPS	Set Actual Position
Radar	OFF
ADG Manual Release	STOWED
EMER FLAP	NORMAL
BATTERY MASTER	ON
APU/AC Electrics	AS REQUIRED /ESTABLISHED
IRS	NAV
Emergency Equipment	CHECKED
Gear and Safety Pins	ON BOARD
Airplane Documents	CHECKED
HYDRAULIC 3A	ON
FMS Initialization	COMPLETE

ORIGINATING CHECK CHECK(FFOD)

Crew Oxygen and Masks : CHECKED /QUANTITY

AUDIO WARNING Panel (Copilot) : NORMAL

– DCU switches : GUARDED, NO LIGHTS

ELECTRICAL POWER panel : CHECKED

– All GEN switches : AUTO

– IDG DISC switches : GUARDED

– DC SERVICE switch : ON

– BATT MASTER : ON

FIRE DETECTION/FIREX MONITOR Test

– FIREX TEST switch : SELECT (for 2 seconds)

– FIRE SYS OK message : VERIFY

L & R HYD SOV switchlights : SELECTED OUT AND GUARDED

EXTERNAL LTS panel : CHECKED

– NAV switch : ON

– BEACON switch : OFF

– STROBE switch : OFF

– LOGO switch : AS REQUIRED

– WING INSP switch : AS REQUIRED

– LANDING LTS : OFF

– RECOG TAXI LTS : OFF

FUEL Panel

– All switches : OFF /FLUSHED

– INOP lights : CHECK ON

BLEED AIR panel : AUTO

– WING A/I CROSS BLEED switch : NORMAL

– BLEED VALVES switch : AUTO

– ISOL switch : CLOSED

– BLEED SOURCE switch : BOTH ENG

APU : Start 10 minutes prior to door closure

Start Panel : CHECKED

– L & R ENG START switches : OFF /FLUSHED

– IGNITION CONT switch : OFF /FLUSHED

HYDRAULIC panel : CHECKED

- HYDRAULIC switches : ALL OFF
- EICAS Control Panel (ECP) : HYD synoptic
- Fluid quantities /temperatures : CHECK
- PUMP 1, 3B, and 2 switches : ON
 - * Pressures, quantities, temperatures : CHECK
- EICAS Control Panel (ECP) : STAT synoptic
- PUMP 1, 3B, and 2 switches : AUTO
 - * Pressure depletion : CHECK
- PUMP 3A : ON
 - * Pressure, quantity, and temperature : CHECK

ELT

- ELT : ARM/RESET
- PASS OXY switchlight : VERIFY GUARDED NO LIGHT

CABIN PRESS panel : CHECKED

- EICAS Control Panel : ECS synoptic
- MAN ALT switch and RATE selector : CENTERED
- EMER DEPRESS switch : OFF /GUARDED
- PRESS CONTROL switch : OFF /FLUSHED
- MAN RATE switch : FULL DECR

AIR CONDITIONING panel : CHECKED

- PACK switches : AUTO
- RECIRC FAN : ON
- Temperature control mode : AUTO
- RAM AIR switch : OFF /GUARDED
- WING and COWL switches : OFF

Ice Detection Test

- EICAS Control Panel : PRI and STAT pages
- DET TEST switch : SELECT AND HOLD
- ADS HEAT TEST OK message : VERIFY
- DET TEST switch : RELEASE

WSHLD switches : LOW

- L and R Probe switches : OFF

EMER LTS switch : ARM

Standby Compass : CHECKED

STALL Test : COMPLETE

- STALL PTCT PUSHER switches : ON
- STALL switch (either) : SELECT Momentarily

NW STRG switch : OFF

Clocks : CHECKED

EFIS Control panels : CHECKED

- Display control switches : MAP, RANGE 25
- Air data reference switches : FMS1 /AS REQUIRED
- BARO switch : SET
- Display Reversionary Panel : NORM

Instrument panels : CHECKED

- Primary flight display : CHECK
 - * Annunciations : CHECK NONE DISPLAYED
 - * ADIs and RMIs : CROSS-CHECK
- Altimeter readout : CROSS-CHECK w/CO-PILOT
- Multifunction display : CHECK NO FLAGS
- CVR TEST switch : PRESS AND HOLD 5 SEC

EICAS and Standby instruments : CHECKED

- EICAS primary display : CHECK
 - * No Warning and/or Caution Messages

- * All other indications Normal

- Standby altimeter /airspeed indicator : CROSS-CHECK
- EICAS secondary display : CHECK
 - * Annunciations /messages
 - * All other indications normal

ANTI SKID Test

- ANTI-SKID switch : ARMED
- ANTI-SKID switch : OFF
- A/SKID OUTBD and INBD : VERIFY
- ANTI-SKID switch : ARMED

MLG BAY OVHT TEST

- MLG BAY switch : HOLD AT OVHT
- MLG BAY switch : RELEASE
- OVHT TEST switch : HOLD AT WARN FAIL
- OVHT TEST switch : RELEASE

Upper Pedestal : CHECKED

- FMS : Set as Required
- Brake temperature : CHECK
- MUTE HORN switch : GUARDED, LIGHT OUT
- LDG GEAR lever : DN
- ENGINES SYNCH : N1
- IND LTS switch : BRT or DIM
- GRND PROX switches : CHECKED
 - * TERRAIN switch : GUARDED NO LIGHTS
 - * FLAP switch : GUARDED NO LIGHTS

Thrust Lever Quadrant

- PITCH and ROLL DISC handles : IN /STOWED
- GND LIFT DUMPING switch : AUTO
- LH & RH THRUST REVERSER switches : ARMED
- Thrust Levers : CHECK AT SHUTOFF

Avionics : CHECKED

- Radio tuning units (both) : CHECK NORMAL AND NO MESSAGES
 - * Display Control Panel TCAS switch: SELECT
 - * ALT line select key : SELECT
- Public Address System : TEST
 - * ACP transmit knob : SELECT PA
 - * Interphone control unit : Push PA switchlight
- Weather Radar Mode Select Switch : BOTH OFF
- RTU and FMS TUNE INHIBIT switches : OFF / FLUSHED
- Back-up Mode selector switch : STBY
- DSPLY FAN switch : NORM
- IRS switch : NAV

Trims : Checked

- STAB and MACH TRIM switches : Engage
- AIL and RUD trim : TEST THEN NEUTRAL

YAW DAMPER switches : ENGAGE

Source Select Panel : NORM

Lower Pedestal : CHECKED

- PARKING BRAKE : AS REQUIRED
- LANDING GEAR manual release handle : STOWED
- ADG manual deploy handle : STOWED
- EMER FLAP switch : NORMAL

Originating Check : CALL

Originating Check

Internal and External Pre-Flight Checks	COMPLETE
Pedals, Seats, and Harness	ADJUSTED
Crew Oxygen and Masks	CHECKED (QTY)
AUDIO WARNING Panel	CHECKED
ELECTRICAL POWER Panels	CHECKED
FIRE DETECTION/FIREX MONITOR Test	COMPLETE
EXTERNAL LTS Panel	CHECKED
FUEL Panel	CHECKED
BLEED AIR Panels	CHECKED
APU Panel	AS REQ'D
Start Panel	CHECKED
HYDRAULIC Panel	CHECKED
ELT	ARM/RESET
CABIN PRESS Panel	CHECKED
AIR-CONDITIONING Panel	CHECKED
Ice DET TEST	COMPLETE
EMER LTS	ARM
Standby Compass	CHECKED
Clocks	CHECKED
Side Control Panels	CHECKED
Stall Test	COMPLETE
N/W STRG	OFF
Clocks	SET
EFIS Control Panels	CHECKED
Instrument Panels	CHECKED
EICAS and Standby Instrument	CHECKED
Anti-Skid Test	COMPLETE
MLG Bay Overheat Test	COMPLETE
Upper Pedestal	CHECKED
Thrust Lever Quadrant	CHECKED
Avionics	CHECKED
Trims	CHECKED
YAW DAMPER	ENGAGE
Source Select Panel	NORM
Lower Pedestal	CHECKED

BEFORE START FLOW AND CHECK (T-25 MIN)

ATIS : OBTAIN

Crew Oxygen /Masks : CHECKED /QUANTITY

PASS SIGNS : ON

– NO SMKG switch : ON

– SEAT BELTS switch : ON

Altimeters : SET

ATC Clearance : OBTAIN

FMS Flight Plan Programming

– FLPN page

* Route: ENTER

– DEP/ARR page

* Runway, SID, and STAR : SELECT

– FLPN page

* Flight plan : REVIEW

* Total distance : VERIFY

* Flight plan : EXEC

* Flight plan : COPY ACTIVE

– RADIO page

* Select as required

– PERF MENU page

* Advisory VNAV : ENABLE

* If fuel not in PREDICTED performance mode:

· PERF MENU : SELECT

· FUEL MANAGEMENT : SELECT

· PREDICTED performance mode : SELECT

– PERF INIT page 1

* Transfer from Dave or Manual Entry

* Pass : ENTER

* Cargo : ENTER

* ZFW : ENTER

* Actual Fuel on board : ENTER

* CRZ ALT : ENTER

* ALTN CRZ ALT : ENTER

– PERF INIT page 2

* Average wind component: ENTER INTO CLIMB,
CRUISE, DESCENT

* ISA deviation : ENTER

– VNAV page 1

* TGT SPEED : 290/.70-.74 OR CI SPEED

* SPD/ALT LIMIT : 250/10000

* TRANS ALT : VERIFY

– VNAV page 2

* TGT SPEED : 290/.74 OR CI SPEED

– VNAV page 3

* TGT SPEED: .74/290 OR CI SPEED

* SPD/ALT LIMIT : 250/10000

* TRANS FL : VERIFY

V-Speeds : SET VIA DAVE

LDG ELEV : SET

Radios and Nav aids : SET FOR DEPARTURE

– Navigation Source : SELECT AND IDENTIFY

– Flap Retraction Altitude (FRA) on MDA bug : 1000' AFE

– Course 1 and 2 : SET

– Airspeed bug : 200 KIAS

– Heading bug : RUNWAY HDG

– ALT preselect : INITIAL ALTITUDE

Takeoff Briefing : COMPLETE

BEFORE START CHECK

Crew Oxygen and Masks	CHECKED (QTY)
PASS SIGNS	ON
LDG ELEV	SET
Altimeters	SET (XX.XX)
FMS /IRS	SET
Radios and Nav aids	SET FOR DEPARTURE
Takeoff Briefing	COMPLETE

Cleared to Start Check

APU/AC Electrics : CHECK

- APU : Verify Started
- APU Generator : Verify ON
- External Power : DISCONNECT VIA DAVE

Take-off Data : SET VIA DAVE

Doors : CLOSED/LOCKED VIA DAVE

BEACON switch : ON

Fuel pumps and quantity : ON QUANTITY

Hydraulic Pumps : AUTO /ON

- Pumps 1B, 2B, 3B : AUTO
- Pump 3A : ON

Nosewheel Steering : OFF

ACARS : START FLIGHT

Chocks : REMOVE VIA DAVE

Cleared to Start Checklist Above Line : CALL

Pushback : INITIATE

Cleared to Start Checklist

APU/AC Electrics	CHECK
Papers	ON BOARD
Take-Off Data	SET
Doors	CLOSED/LOCKED
BEACON	ON
Fuel Pumps and Qty	ON XXXX (QTY)
HYDRAULIC PUMPS	AUTO /ON

Engine Start - APU Assist

Thrust Levers (Both) : CHECK AT SHUT OFF

R ENG : START

When N2 > 20% and ITT < 120 deg C:

- L or R Thrust Lever : Advance to IDLE

Engine Instruments : CHECK

L ENG : START

When N2 > 20% and ITT < 120 deg C:

- L or R Thrust Lever : Advance to IDLE

Engine Instruments : CHECK

APU EGT indications : CHECK WNL

After Start Check

GEN 1 and GEN 2 : AUTO

BLEED VALVE and PACKs : AUTO/ON

- L and R PACK OFF Status Messages : VERIFY OUT

Anti-Ice : AS REQUIRED

PROBES switches : LH & RH ON

Electrics : Checked

- Generators : POWERING RESPECTIVE BUSES
- AC Frequencies, Voltages, and Loads : WNL
- DC TRUs : VERIFY POWERED
- Voltages and Loads : VERIFY WNL
- MAIN TIE, CROSS TIE, ESS TIE : VERIFY TIE OPEN
- GEN 1 OFF and GEN 2 OFF messages : VERIFY OFF

Rudder

– N/W STRG : VERIFY OFF

– EICAS Control Panel : F/CTL

– Rudder travel : CHECK

N/W STRG : ARMED

After Start Checklist : CALL

After Start Checklist

GEN 1 and GEN 2	AUTO
BLEED VALVES & PACKs	AUTO/ON
ANTI-ICE	REQ'D
PROBES	ON
Electrics	CHECKED
Rudder	CHECKED
Nosewheel Steering	ARMED

Taxi Check

Fuel X-Flow : MAN/OFF

- XFLOW AUTO OVERRIDE : SELECT
- MAN XFLOW White Status : VERIFY
- GRAV XFLOW OPEN advisory : VERIFY
- L XFLOW ON/R XFLOW ON : VERIFY

IGNITION /ANTI-ICE : AS REQUIRED

Flight Instruments : CHECKED

FMS : VERIFY AUTOTUNE ON RTU

BRAKE TEMP : CHECKED

- All BTMS indicators : GREEN

Radar /Terrain Display : AS REQUIRED

Flaps : SET

Flight controls : CHECKED

- EICAS Control Panel : F/CTL
- Ailerons : Check full deflection
- Elevator : Check full deflection

Trims : GREEN

- Aileron and rudder trims : GREEN
- STAB TRIM CH1 and CH2 : ENGAGED
- Stabilizer trim : SET

Thrust Reversers : ARMED

EICAS Control Panel : PRI and STAT SELECTED

CAS : CHECKED AND CLEARED

- TO CONFIG OK advisory : CHECK ON

Transponder : SELECT 1 OR 2

RECOG/TAXI lights : ON

Taxi Checklist

SLATS /FLAPS	SET /INDICATING
Flight Controls	CHECKED
Trim	GREEN, CENTERED, .
Thrust Reversers	ARMED
Flight Instruments	Checked
FMS	AUTOTUNE
BRAKE TEMP	Checked

Before Takeoff Flow and Check

When cleared onto runway:

- STROBES : ON
- LANDING LTS : ON x 3
- Ignition/Anti-Ice : As Required
 - * Used if icing conditions expected prior to climb thrust reduction
- CAS messages : Verify

When lined up on runway:

- Compass heading : VERIFY
- TOGA : DEPRESS

BEFORE TAKE-OFF CHECK

Lights and Strobes	AS REQUIRED
FUEL X-FLOW	MAN/OFF
IGNITION/ANTI-ICE	AS REQUIRED
Flight Attendant	NOTIFIED
Transponder /TCAS	ON /AS REQUIRED
Radar/Terrain Display	AS REQUIRED
CAS	Checked and Cleared

Takeoff

Throttles : Near Vertical (70% N1)

When stabilized:

- Throttles : ADVANCE TO TOGA detent

At V_R:

- ROTATE

With positive rate of climb:

- GEAR : UP

At V₂ + 10 to 15 knots:

- SPEED MODE : SELECT

Above 400' AGL

- HDG or NAV mode : SELECT

Above 600' AGL

- Autopilot : ENGAGE

At Acceleration Altitude (1000' AGL):

- Speed : BUG to 200 KIAS
- FLAPS : RETRACT ON SCHEDULE
- Thrust Levers : CLIMB DETENT

At 3000' AFE:

- Speed : 250 KIAS

Flap Retraction Schedule

	8	20
Set 8		V ₂ + 12
Set 1	V ₂ + 12	V ₂ + 20
Set 0	V _{FTO} - 15	V _{FTO} - 15

Climb Check

Fuel X-FLOW : AUTO

- AUTO OVERRIDE switch : OFF
- Fuel quantity /distribution : MONITOR

Bleeds and APU : SET

- BLEED SOURCE : AUTO
- APU : SHUT DOWN

Passing 10K':

- Lights and PASS SIGNS : AS REQUIRED
- Thrust Reverser switches : OFF
- CAS : CHECKED AND CLEARED

Climb Check

Gear and Flaps	UP
FUEL X-FLOW	AUTO
Bleeds/APU	Set /AS REQUIRED
Lights/PASS SIGNS	AS REQUIRED
Thrust Reversers	OFF
CAS	CHECKED AND CLEARED

Vertical Nav Planning

Climb

- At 10K':
 - * AP Mode : VS + 1000 FPM
- Reaching 290 KIAS:
 - * AP Mode : VS 1600 FPM
- Control IAS with VS

Descent

- Altitude Restrictions : SET LEGS PAGE and EXEC
- DIR INTC Page : SELECT
- When angle to waypoint > 2.5 degree:
 - * VS Mode : ENGAGE

Descent

ATIS : Record

Desination Airport Landing Field Elevation : SET

Fuel : CHECKED

Altimeters : SET

- Standby altimeter : SET QNH

TCAS : AS REQUIRED

Radar : AS REQUIRED

Terrain Display : AS REQUIRED

CAS : CHECKED AND CLEARED

Landing Data : SET

- V_{2GA}, V_T : SET VIA DAVE
- Select STAR, approach, and transition
- Insert V_{REF} as speed constraint on LEGS page abeam runway or MAP
- Approach Frequencies : Preselect in RTUs
- DA /MDA /FRA : Set on both PFDs
- NAVAIDS : Set
- Bearing Pointers : AS REQUIRED

Approach : BRIEF

Descent Check

LDG ELEV	SET
Fuel	Checked
TCAS	AS REQUIRED
Radar	AS REQUIRED
Terrain Display	AS REQUIRED
CAS	CHECKED AND CLEARED
Landing Data	SET
Approach Briefing	COMPLETE

10,000 FOOT CHECK

APU and bleeds : SET

Lights and PASS SIGNS : AS REQUIRED

– RECOG/TAXI LTS : ON

– PASS SIGNS : ON

Thrust Reversers : ARM

Approach Check

Altimeters	XX.XX SET
APU and bleeds	SET
Lights /PASS SIGNS	AS REQUIRED

Approach Navigation Transition from FMS to NAV

– Heading bug : SYNC

– Heading mode : Select

– RTU : Select appropriate frequency

– NAV source : Confirm correct course

– FCP : Select appropriate mode

FCP Approach Modes

Approach	PF	PM	FCP Selection
ILS	LOC	LOC	APPR
LOC or LDA	LOC	LOC	NAV
BCRS	LOC	LOC	B/C
VOR (FMS)	FMS	VOR	NAV
VOR (Raw)	VOR	VOR	NAV
GPS or RNAV	FMS	FMS	NAV

Precision Approach

When appropriate:

– Speed : 200 KIAS

– FLAPS : 1

– Speed : 190 KIAS

At Initial segment or entering downwing

– FLAPS : 8

– Speed : 180 KIAS

Base Leg:

– FLAPS : 20

– Speed : 170 KIAS

When cleared for approach:

– APPR mode : ENGAGE

At glideslope capture:

– GEAR : DOWN

– FLAPS : 30

– ALT Preselector : SET MISSED APPROACH ALTI-TUDE

Not lower thn 1500' AGL:

– FLAPS : 45

– Speed : V_REF + factor

– Landing Checklist : CALL

At Final Approach Fix:

– Fix name, altitude, and flags : CHECK

At DH/DA and landing is feasible:

– Autopilot : DISCONNECT NLT 80' AGL

Landing Checklist

PASS SIGNS	BOTH ON
Thrust Reversers	ARMED
Landing Gear	DOWN, 3 GREEN
Flaps	___ deg INDICATING

Go-Around

At Go-Around Initiation

– TOGA button : DEPRESS

– Throttles : TOGA detent

– Flaps : 8

With positive rate of climb

– Gear : UP

At V2 + 10 to 15:

– SPEED MODE : SELECT

Above 400' AGL:

– HDG or NAV mode : SELECT

– HEADING or FMS FMA : Verify

Above 600' AGL:

– Autopilot : ENGAGE

At Acceleration Altitude:

– Speed Bug : 200 KIAS

– Flaps : RETRACT ON SCHEDULE

– Thrust Levers : CLIMB

At 3000' AGL:

– Accelerate as required

Normal Landing

At 50' AGL:

– Throttles : SLOWLY CLOSE TO IDLE

At 30'-20' AGL:

– FLARE : INTIATE

At Main gear touchdown:

– Thrust Reversers : ENGAGE

At Nosewheel Touchdown:

– Wheel Brakes : Smoothly Apply

At 60 KGS:

– Thrust Reversers : CLOSE

After Landing Flow

APU : As Req'd

Transponder/Radar : As Req'd /OFF

SLATS /FLAPS : UP

Lights and strobes : AS REQUIRED

– LANDING LTS switches : OFF

– STROBE switch : OFF

– RECOG TAXI LTS switch : AS REQUIRED

PROBES switches : OFF

Shutdown Check

Chocks and Brakes : AS REQUIRED

Electrics

– APU or AC External Power : Check Online

Thrust Levers : SHUT OFF

SEAT BLTS switch : OFF

ANTI-ICE : OFF

– WING switch : OFF

– LH and RH COWL switches : OFF

Fuel Pumps : OFF

HYDRAULIC 3A pumps : AS REQUIRED

BEACON : OFF

N/W STRG switch : OFF

Shutdown Checklist

Chocks and Brakes	AS REQUIRED
Electrics	SET
Fuel Pump Check Valve Test	COMPLETE
Thrust Levers	SHUTOFF
SEAT BELTS	OFF
ANTI-ICE	OFF
Fuel Pumps	OFF
HYDRAULIC 3A	As Required
BEACON	OFF
N/W STRG	OFF

Terminating Check

Chocks and Brakes	IN/OFF
IRS	OFF
Thrust Reversers	OFF
EMER LTS	OFF
WSHLD	OFF
AFT CARGO	OFF
HYDRAULIC Pumps	OFF
EXTERNAL LTS	OFF
APU START/STOP	OFF
APU PWR FUEL	OFF
DC SERVICE	OFF
BATTERY MASTER	OFF
DOMELIGHT	OFF
Boarding Lights	OFF

Non-Precision Approach

When appropriate:

– Speed : 200 KIAS

When further speed reduction is required:

– Flaps : 1; SPEED 190 KIAS

– Flaps : 8; SPEED 180 KIAS

– Flaps : 20; SPEED 170 KIAS

When tracking altitude:

– ALT Preselector : SET TO NEXT ALTITUDE

When approaching descent point:

– VS mode : SELECT AT FIX

At 3 to 5 miles before FAF:

– Landing gear : DOWN

– Flaps : 30; SPEED 160 KIAS

At 1 to 2 miles before FAF:

– Flaps : 45

– Speed: VREF + 5–10 KIAS

– Landing Checklist : COMPLETE

At FAF:

– Fix name, altitude, and flags : CHECK

– Chronometer : START

– Autopilot : DISCONNECT ABOVE 400' AGL

When tracking MDA:

– ALT Preselector : SET TO MISSED APP. ALT

When runway in sight:

– Landing : CONTINUE VISUALLY

– Flight Director : OFF

Visual Approach

Enter visual pattern

– Altitude : AS REQUIRED (1500' AGL)

Prior to abeam:

– FLAPS : 1; SPEED 190 KIAS

– FLAPS : 8; SPEED 180 KIAS

When abeam:

– FLAPS : 20; SPEED 170 KIAS

– Landing Gear : DN PRIOR TO TURNING BASE

On base:

– DESCENT : INITIATE 3 DEG G/S

– FLAPS : 30; SPEED 160 KIAS

Above 500' on final:

– FLAPS : 45

– Speed: VREF + FACTOR

Landing Checklist : COMPLETE

Autopilot : DISCONNECT NLT 400' AGL

Altitude Preselector : AS REQUIRED

Flight Director : OFF

Circling Approach

After FAF:

- Flaps : 30
- Landing Gear : DOWN

When Circling MDA captures:

- Circling MDA : MAINTAIN
- Altitude Preselector : Set to Missed Approach Altitude

At desired position, commence base turn towards final:

- Descent : INITIATE 3 deg DESCENT
- Autopilot : DISCONNECT ABOVE 400' AGL

When in position to land NLT 500'

- Flaps: 45
- Speed: V_REF + 10
- Landing Checklist : COMPLETE
- Flight Director : OFF