

SEPECAT-Jaguar aerodynamic model

Built using VSPAERO; Aerodynamic Datum (8.6247, 0, -0.005)M, 2020-02-23 08:16: Richard Harrison, rjh@zaretto.com, ZDAT/AED/2019/11-01

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AeroDetail=Full, Flaps, Gear, GroundEffect, Mach, Speedbrake, WakeIterations=3

Model summary

| Dependent variable | Independent variables | Axis | Description |
|--------------------|--------------------------|-------|--|
| CFXB | alpha,beta | DRAG | BASE DRAG |
| CFXFLAPS | alpha,elevator | DRAG | DRAG DUE TO FLAPS INBOARD |
| CFXFLAPSOB | alpha,elevator | DRAG | DRAG DUE TO FLAPS OUTBOARD |
| CFXGEAR | alpha,beta | DRAG | DRAG DUE TO GEAR |
| CFXDGE | hmrc,alpha | DRAG | DRAG DUE TO GROUND EFFECT |
| CFXMN | mach,alpha | DRAG | DRAG DUE TO MACH |
| CFXDRDMN | mach,alpha | DRAG | DRAG DUE TO MACH DUE TO RUDDER DEFLECTION |
| CFXDRD | alpha,beta | DRAG | DRAG DUE TO RUDDER DEFLECTION |
| CFDSL | alpha,slats | DRAG | DRAG DUE TO SLATS |
| CFXBRK | alpha,beta | DRAG | DRAG DUE TO SPEEDBRAKE |
| CFDSPL | alpha,beta,spoiler-left | DRAG | DRAG DUE TO SPOILERS LEFT |
| CFDSPR | alpha,beta,spoiler-right | DRAG | DRAG DUE TO SPOILERS RIGHT |
| CFZB | alpha,elevator | LIFT | BASE LIFT |
| CFZFLAPS | alpha,elevator | LIFT | LIFT DUE TO FLAPS INBOARD |
| CFZFLAPSOB | alpha,elevator | LIFT | LIFT DUE TO FLAPS OUTBOARD |
| CFZGEAR | alpha,beta | LIFT | LIFT DUE TO GEAR |
| CFZDGE | hmrc,alpha | LIFT | LIFT DUE TO GROUND EFFECT |
| CFZMN | mach,alpha | LIFT | LIFT DUE TO MACH |
| CFZDRDMN | mach,alpha | LIFT | LIFT DUE TO MACH DUE TO RUDDER DEFLECTION |
| CFZDRD | alpha,beta | LIFT | LIFT DUE TO RUDDER DEFLECTION |
| CFZDSL | alpha,slats | LIFT | LIFT DUE TO SLATS |
| CFZBRK | alpha,beta | LIFT | LIFT DUE TO SPEEDBRAKE |
| CFZDSPL | alpha,beta,spoiler-left | LIFT | LIFT DUE TO SPOILERS LEFT |
| CFZDSPR | alpha,beta,spoiler-right | LIFT | LIFT DUE TO SPOILERS RIGHT |
| CMM1 | alpha,elevator | PITCH | BASE PITCHING MOMENT |
| CMMQ | alpha | PITCH | PITCH DAMPING DERIVATIVE |
| CMMALPHADOT | alpha | PITCH | PITCH DERIVATIVE MOMENT DUE TO ALPHA DOT |
| CMMDRDMN | mach,alpha | PITCH | PITCH MOMENT CHANGE DUE TO MACH DUE TO RUDDER DEFLECTION |
| CMDRD | alpha,beta | PITCH | PITCH MOMENT DUE TO RUDDER DEFLECTION |
| CMDSL | alpha,slats | PITCH | PITCH MOMENT DUE TO SLATS |
| CMMFLAPS | alpha,elevator | PITCH | PITCHING MOMENT DUE TO FLAPS INBOARD |

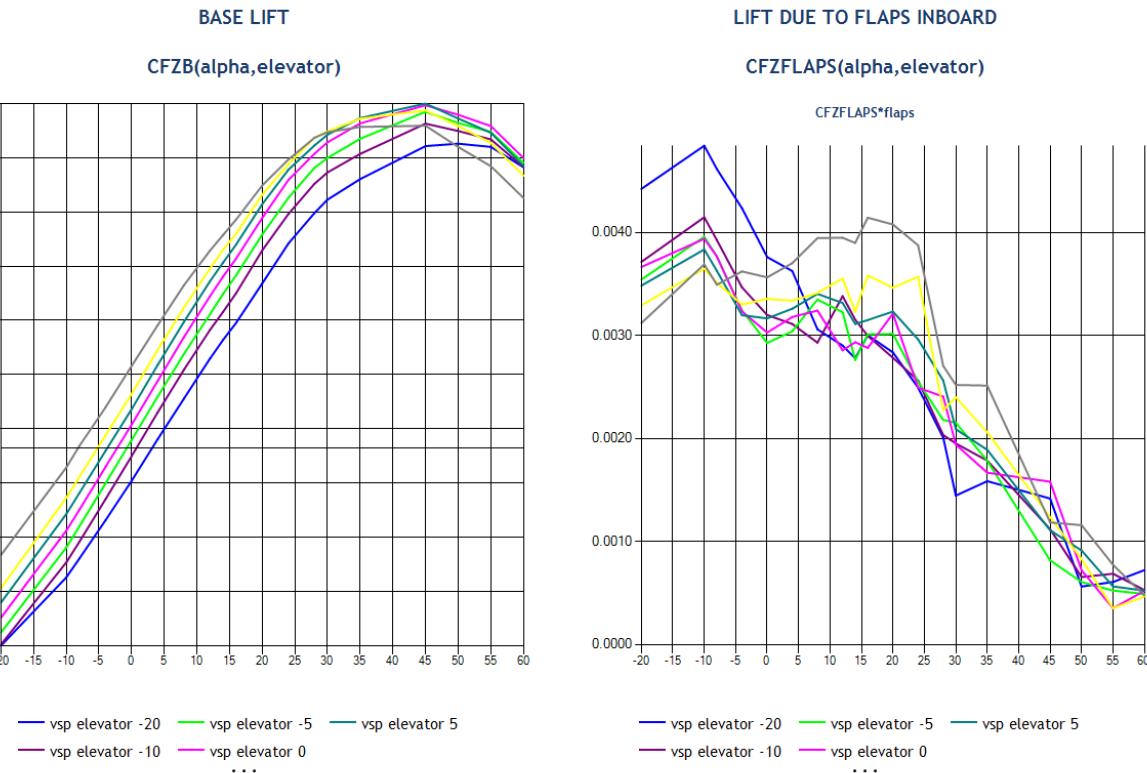
| | | | |
|------------|--------------------------|-------|---|
| CMMFLAPSOB | alpha,elevator | PITCH | PITCHING MOMENT DUE TO FLAPS OUTBOARD |
| CMMGEAR | alpha,beta | PITCH | PITCHING MOMENT DUE TO GEAR |
| CMDMGE | hmrc,alpha | PITCH | PITCHING MOMENT DUE TO GROUND EFFECT |
| CMMMN | mach,alpha | PITCH | PITCHING MOMENT DUE TO MACH |
| CMBRK | alpha,beta | PITCH | PITCHING MOMENT DUE TO SPEEDBRAKE |
| CMDSPL | alpha,beta,spoiler-left | PITCH | PITCHING MOMENT DUE TO SPOILERS LEFT |
| CMDSPR | alpha,beta,spoiler-right | PITCH | PITCHING MOMENT DUE TO SPOILERS RIGHT |
| CML1 | alpha,beta | ROLL | BASE ROLLING MOMENT |
| CMLP | alpha | ROLL | ROLL DAMPING DERIVATIVE |
| CMLR | alpha | ROLL | ROLL DERIVATIVE MOMENT DUE TO YAW RATE |
| CMLDRDMN | mach,alpha | ROLL | ROLL MOMENT CHANGE DUE TO MACH DUE TO RUDDER DEFLECTION |
| CMLBETADOT | alpha | ROLL | ROLL MOMENT DERIVATIVE FOR BETA DOT |
| CMLDTD | alpha,elevator | ROLL | ROLL MOMENT DUE TO DIFFERENTIAL TAIL DEFLECTION |
| CMLGEAR | alpha,beta | ROLL | ROLL MOMENT DUE TO GEAR |
| CMLMN | mach,alpha | ROLL | ROLL MOMENT DUE TO MACH |
| CMLRD | alpha,beta | ROLL | ROLL MOMENT DUE TO RUDDER DEFLECTION |
| CMLDSL | alpha,slats | ROLL | ROLL MOMENT DUE TO SLATS |
| CMLDSPL | alpha,beta,spoiler-left | ROLL | ROLL MOMENT DUE TO SPOILERS LEFT |
| CMLDSPR | alpha,beta,spoiler-right | ROLL | ROLL MOMENT DUE TO SPOILERS RIGHT |
| CFYB | alpha,beta,elevator | SIDE | BASE SIDEFORCE |
| CFYP | alpha | SIDE | SIDE FORCE DERIVATIVE MOMENT DUE TO ROLL RATE |
| CFYR | alpha | SIDE | SIDE FORCE DERIVATIVE MOMENT DUE TO YAW RATE |
| CFYDTD | alpha,elevator | SIDE | SIDE FORCE DUE TO DIFFERENTIAL TAIL DEFLECTION |
| CYDRD | alpha,beta | SIDE | SIDE FORCE DUE TO RUDDER DEFLECTION |
| CYDSL | alpha,slats | SIDE | SIDE FORCE DUE TO SLATS |
| CYDRDMN | mach,alpha | SIDE | SIDEFORCE CHANGE DUE TO MACH DUE TO RUDDER DEFLECTION |
| CFYGEAR | alpha | SIDE | SIDEFORCE DUE TO GEAR |
| CFYMN | mach,alpha | SIDE | SIDEFORCE DUE TO MACH |
| CFYDSPL | alpha,beta,spoiler-left | SIDE | SIDEFORCE DUE TO SPOILERS LEFT |
| CFYDSPR | alpha,beta,spoiler-right | SIDE | SIDEFORCE DUE TO SPOILERS RIGHT |
| CMN1 | alpha,beta,elevator | YAW | BASE YAWING MOMENT |
| CMNR | alpha | YAW | YAW DAMPING DERIVATIVE |
| CMNBETADOT | alpha | YAW | YAW DERIVATIVE MOMENT DUE TO BETADOT |
| CMNP | alpha | YAW | YAW DERIVATIVE MOMENT DUE TO ROLL RATE |
| CMNDRDMN | mach,alpha | YAW | YAWING MOMENT CHANGE DUE TO MACH DUE TO RUDDER DEFLECTION |
| CMNDTD | alpha,elevator | YAW | YAWING MOMENT DUE TO DIFFERENTIAL TAIL DEFLECTION |
| CMNGEAR | alpha,beta | YAW | YAWING MOMENT DUE TO GEAR |
| CNMNM | mach,alpha | YAW | YAWING MOMENT DUE TO MACH |

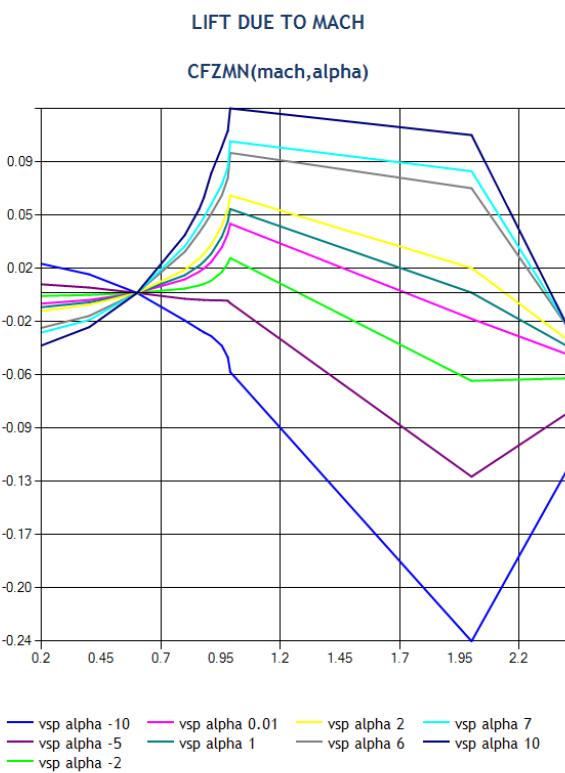
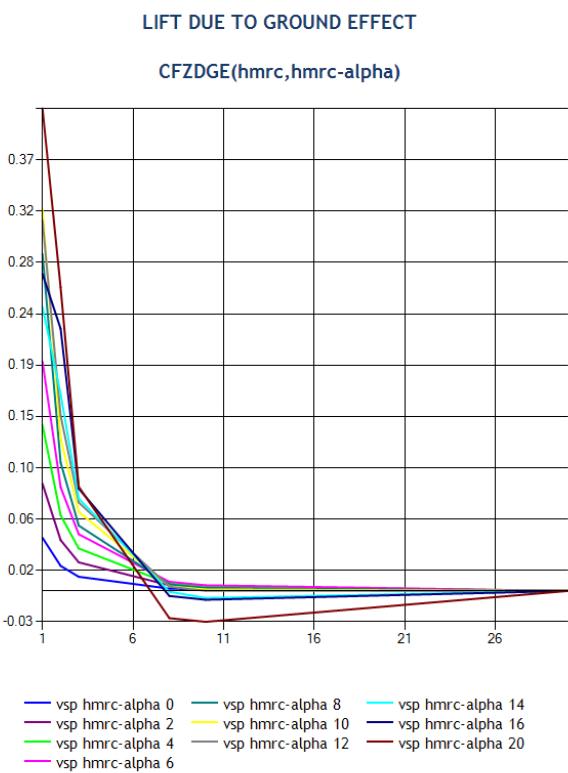
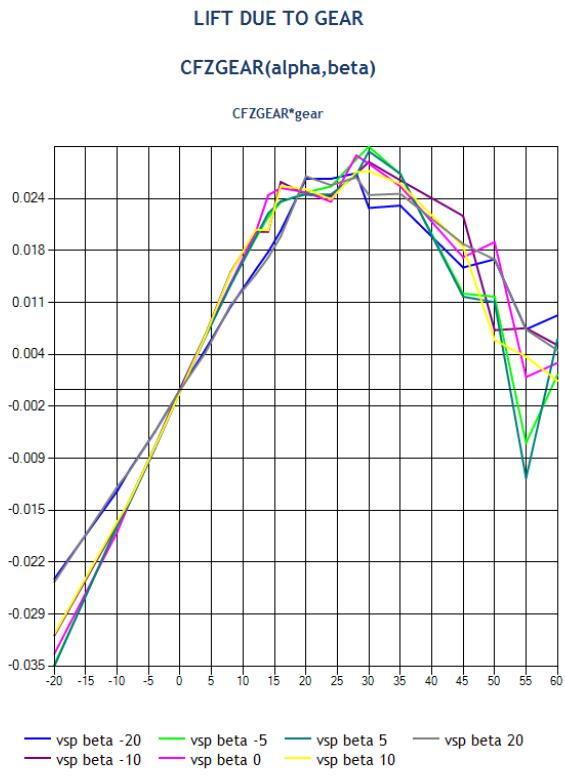
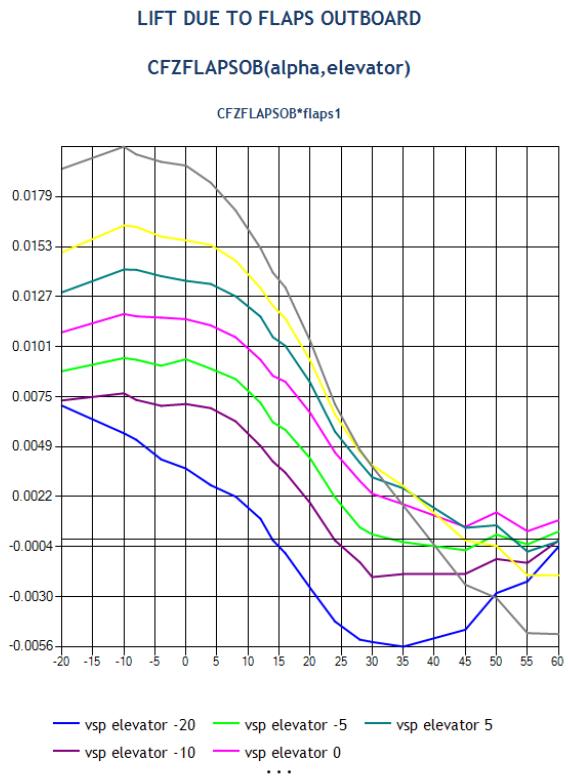
| | | | |
|---------|--------------------------|-----|--|
| CMNDRD | alpha,beta | YAW | YAWING MOMENT DUE TO RUDDER DEFLECTION |
| CMNDSPL | alpha,beta,spoiler-left | YAW | YAWING MOMENT DUE TO SPOILERS LEFT |
| CMNDSPR | alpha,beta,spoiler-right | YAW | YAWING MOMENT DUE TO SPOILERS RIGHT |

Coefficient Buildup

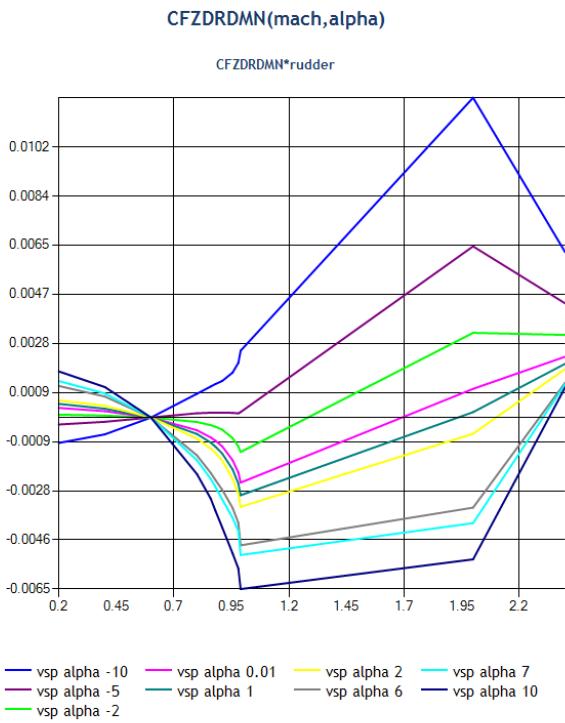
| Axis | Buildup |
|-------|--|
| DRAG | CFXB + CFXDSPL + CFXDSPR + CFXDRD*rudder + CFXDSL + CFXBRK*speedbrake + CFXGEAR*gear + CFXFLAPS*flaps + CFXFLAPSOB*flaps1 + CFXDGE + CFXMN + CFXDRDMN*rudder |
| ROLL | CML1 + CMLDSPL + CMLDSPR + CMLRD*rudder + CMLDSL*beta + CMLGEAR*gear + CMLDTD*DTALD + CMLMN + CMLRDMN*rudder + CMLBETADOT*BETADOT-L + CMLP*PB + CMLR*RB |
| SIDE | CFYDSPL + CFYDSPR + CYDRD*rudder + CYDSL*beta + CFYGEAR*gear*beta + CFYB + CFYDTD*DTALD + CFYMN + CYDRDMN*rudder + CFYP*PB + CFYR*RB |
| LIFT | CFZDSPL + CFZDSPR + CFZDRD*rudder + CFZDSL + CFZBRK*speedbrake + CFZGEAR*gear + CFZFLAPS*flaps + CFZFLAPSOB*flaps1 + CFZB + CFZDGE + CFZMN + CFZDRDMN*rudder |
| PITCH | CMMDSPL + CMMDSPR + CMMRD*rudder + CMMDSL + CMMBRK*speedbrake + CMMGEAR*gear + CMMFLAPS*flaps + CMMFLAPSOB*flaps1 + CMM1 + CMMGE + CMMMN + CMMRD*rudder + CMMALPHADOT*ALPHADOT-L + CMMQ*QB |
| YAW | CMNDSPL + CMNDSPR + CMNDRD*rudder + CMNGEAR*gear + CMN1 + CMNDTD*DTALD + CMNMN + CMNDRDMN*rudder + CMNBETADOT*BETADOT-L + CMNR*RB + CMNP*PB |

LIFT

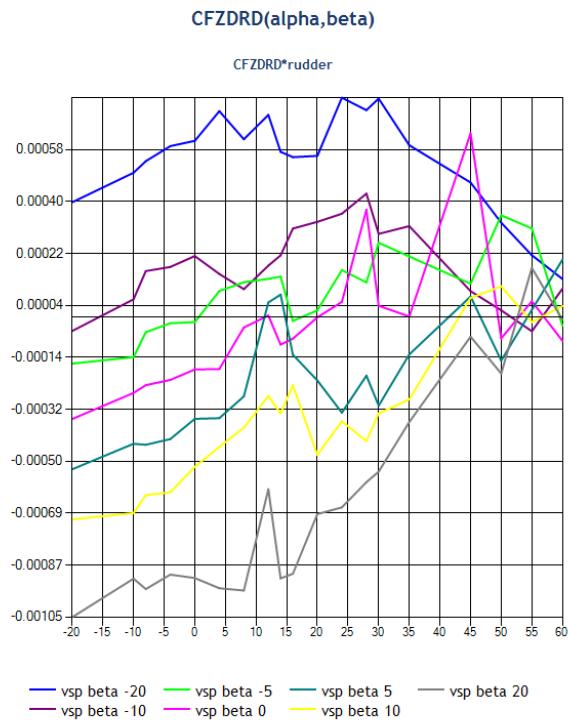




LIFT DUE TO MACH DUE TO RUDDER DEFLECTION



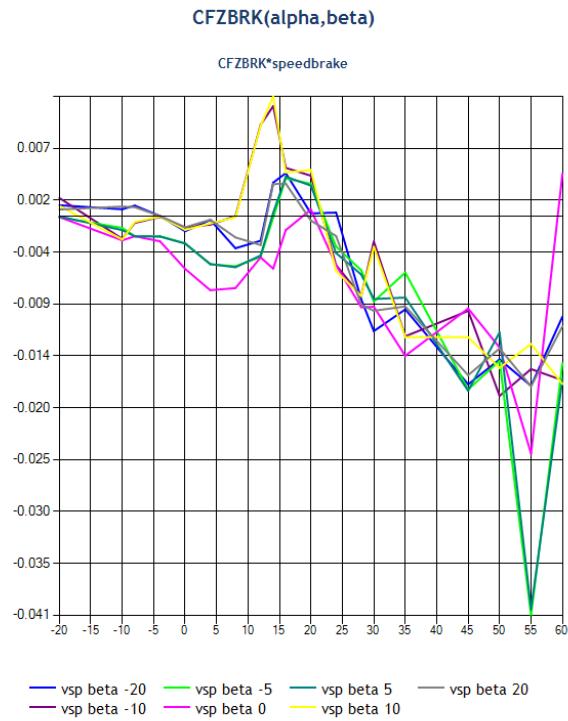
LIFT DUE TO RUDDER DEFLECTION



LIFT DUE TO SLATS

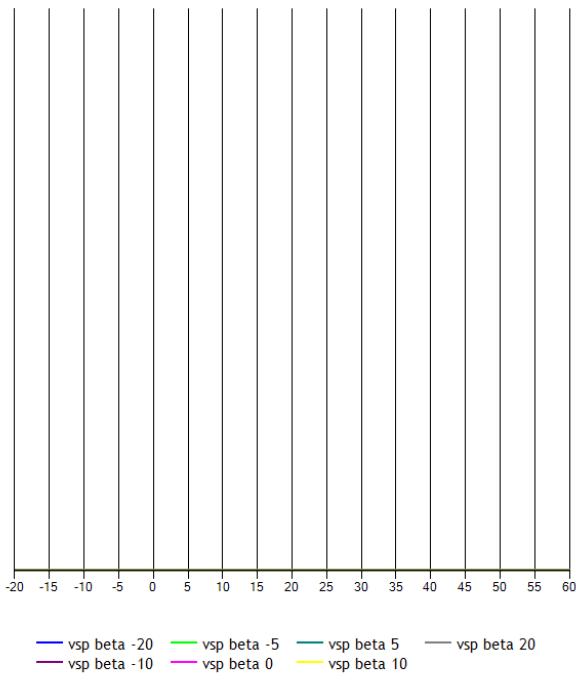


LIFT DUE TO SPEEDBRAKE



LIFT DUE TO SPOILERS LEFT

CFZDSPL (alpha,beta,spoiler-left=0)



LIFT DUE TO SPOILERS LEFT

CFZDSPL (alpha,beta,spoiler-left=20)



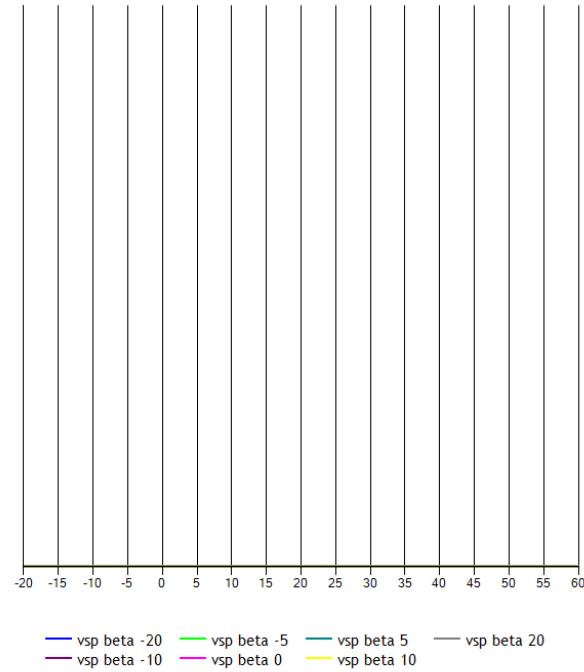
LIFT DUE TO SPOILERS LEFT

CFZDSPL (alpha,beta,spoiler-left=50)



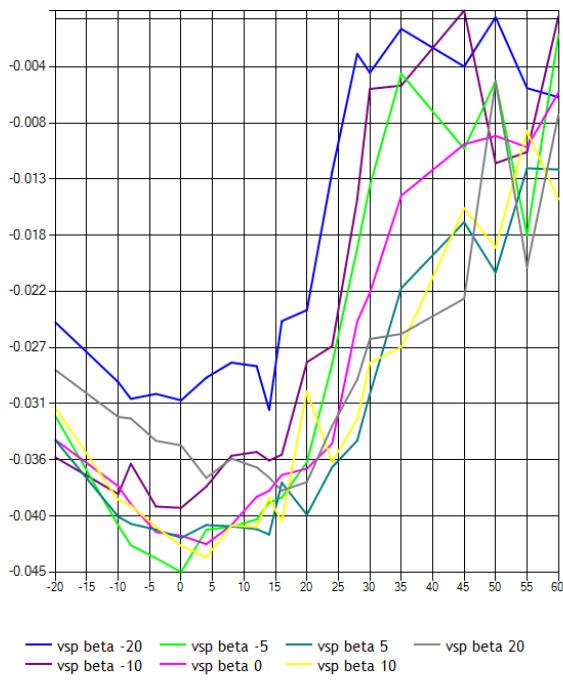
LIFT DUE TO SPOILERS RIGHT

CFZDSPR (alpha,beta,spoiler-right=0)



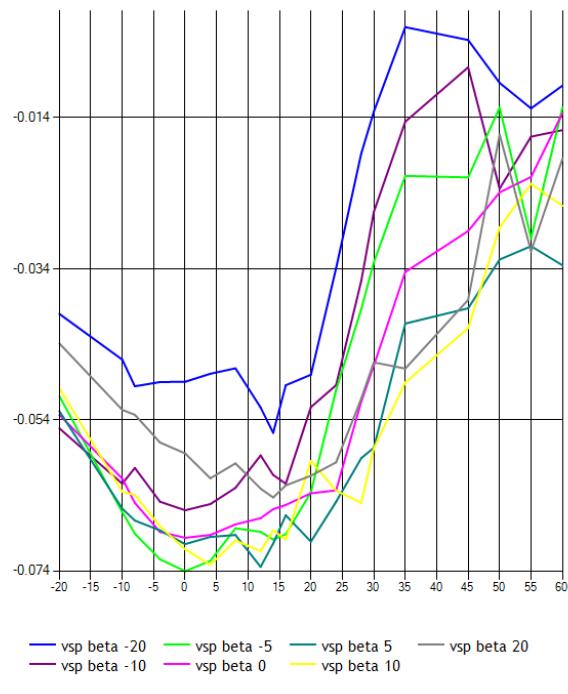
LIFT DUE TO SPOILERS RIGHT

CFZDSPR (alpha,beta,spoiler-right=20)



LIFT DUE TO SPOILERS RIGHT

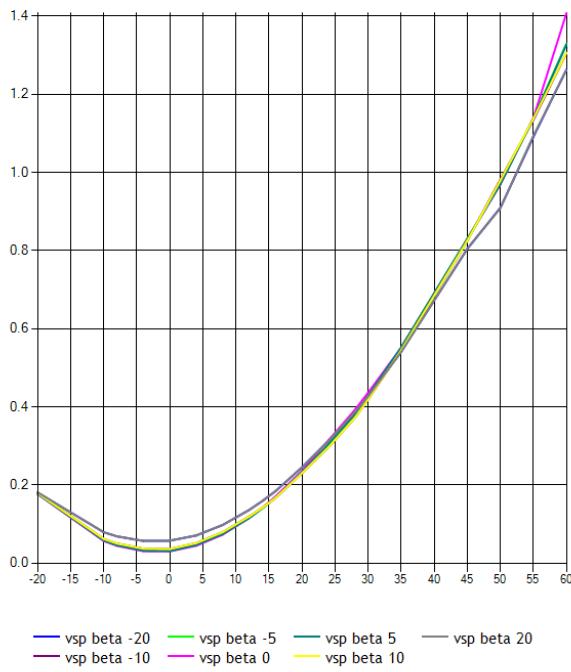
CFZDSPR (alpha,beta,spoiler-right=50)



DRAG

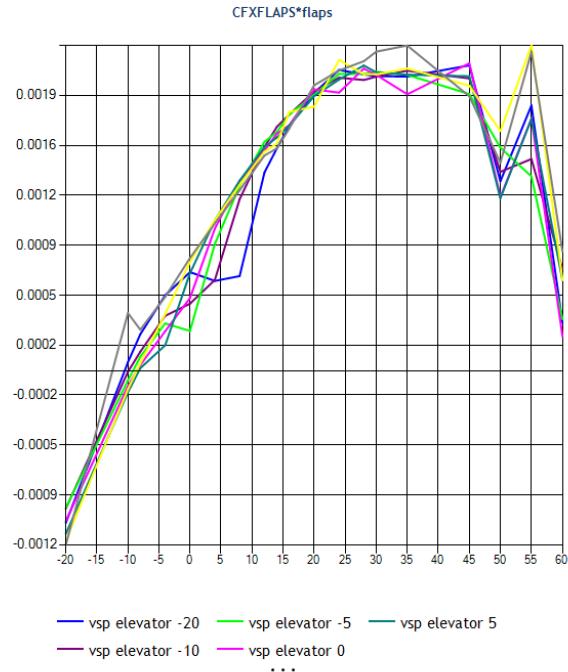
BASE DRAG

CFXB(alpha,beta)



DRAG DUE TO FLAPS INBOARD

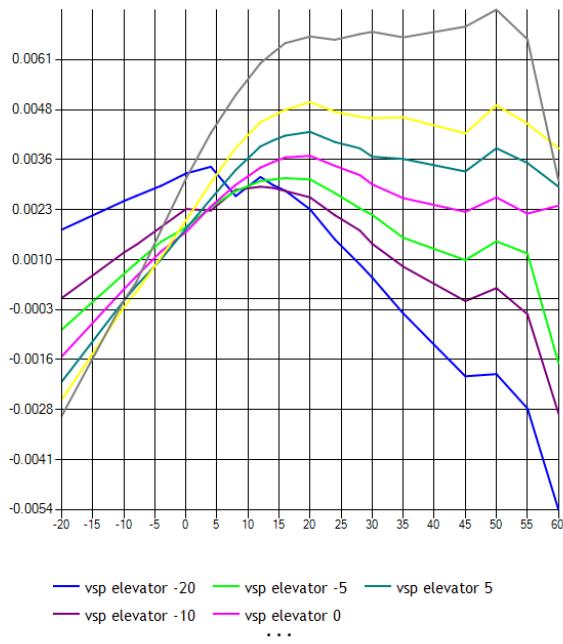
CFXFLAPS(alpha,elevator)



DRAG DUE TO FLAPS OUTBOARD

CFXFLAPSOB(alpha,elevator)

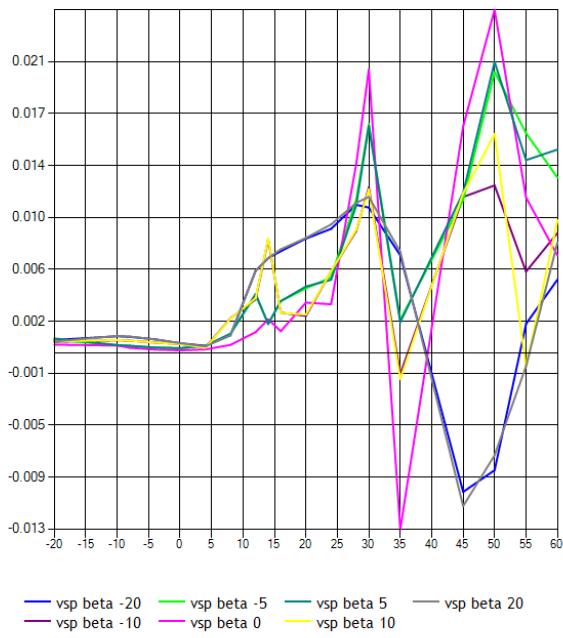
CFXFLAPSOB*flaps1



DRAG DUE TO GEAR

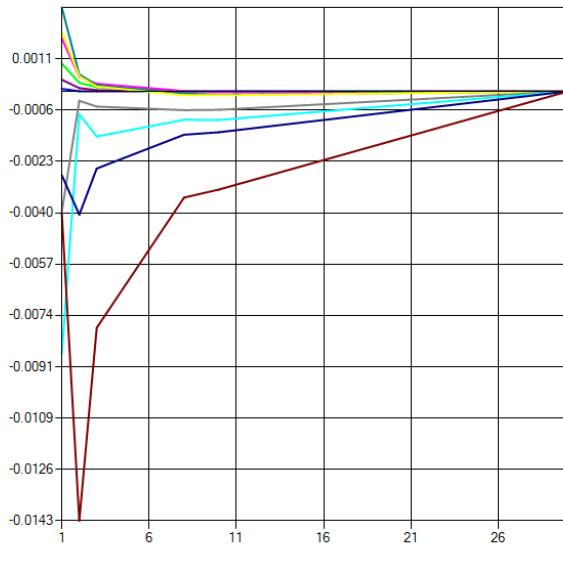
CFXGEAR(alpha,beta)

CFXGEAR*gear



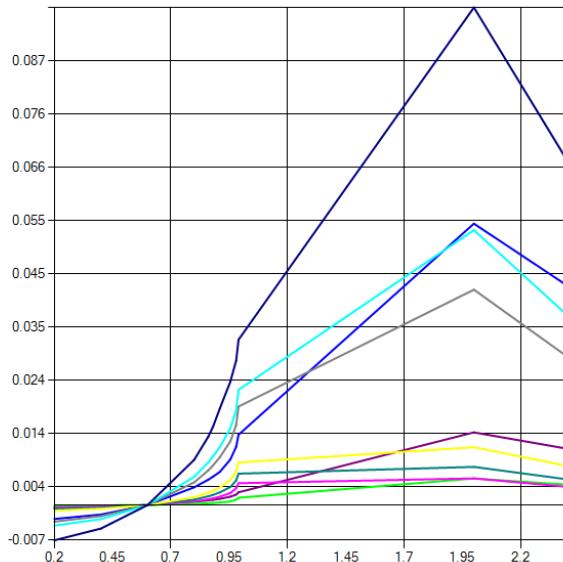
DRAG DUE TO GROUND EFFECT

CFXDGE(hmrc,hmrc-alpha)

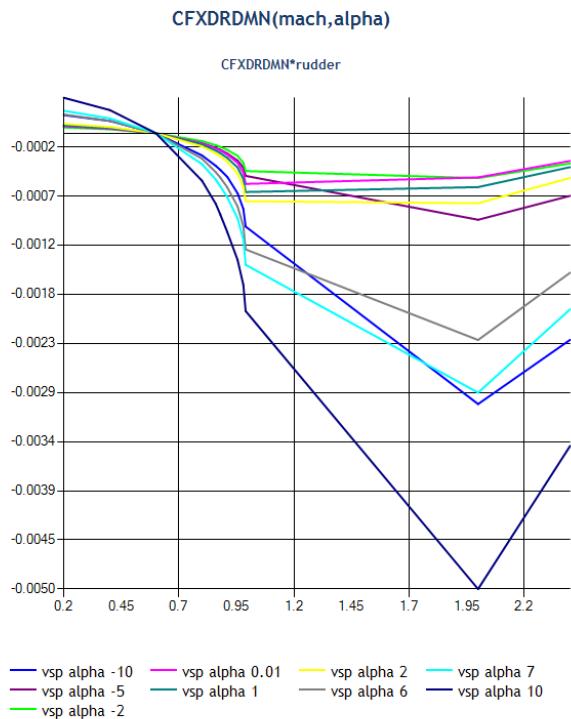


DRAG DUE TO MACH

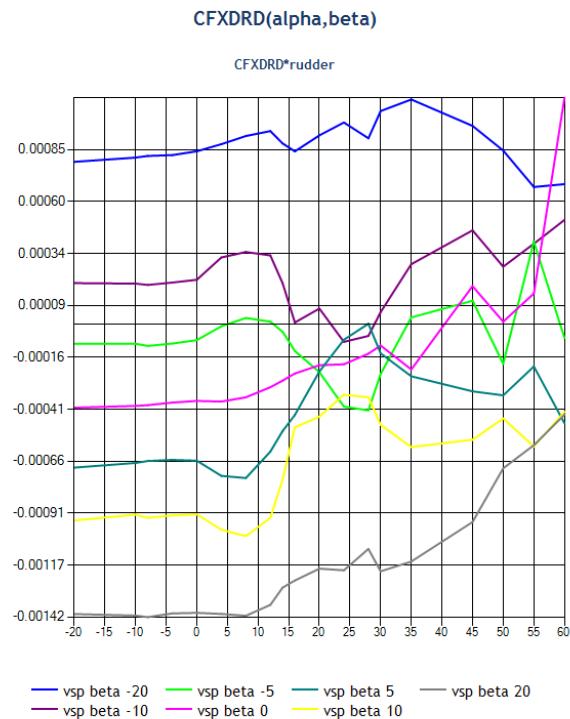
CFXMN(mach,alpha)



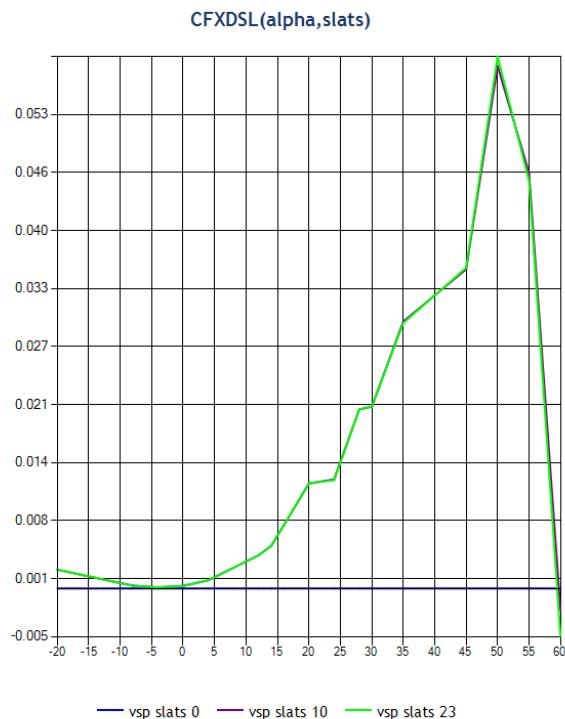
DRAG DUE TO MACH DUE TO RUDDER DEFLECTION



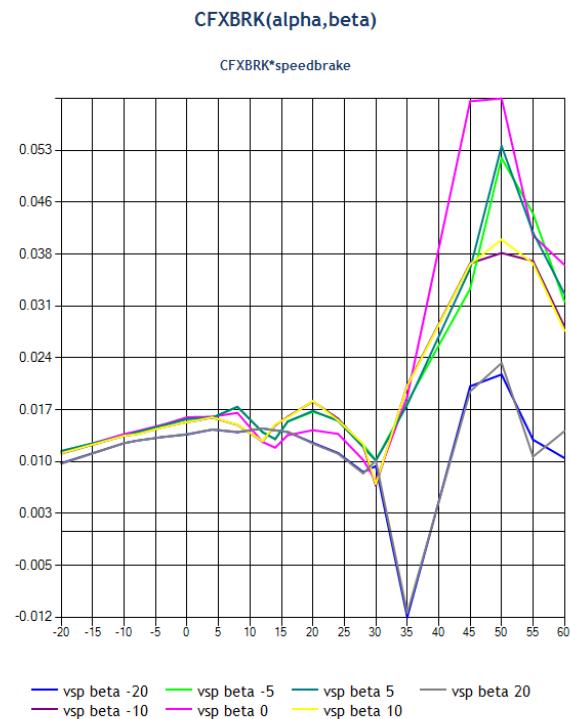
DRAG DUE TO RUDDER DEFLECTION



DRAG DUE TO SLATS

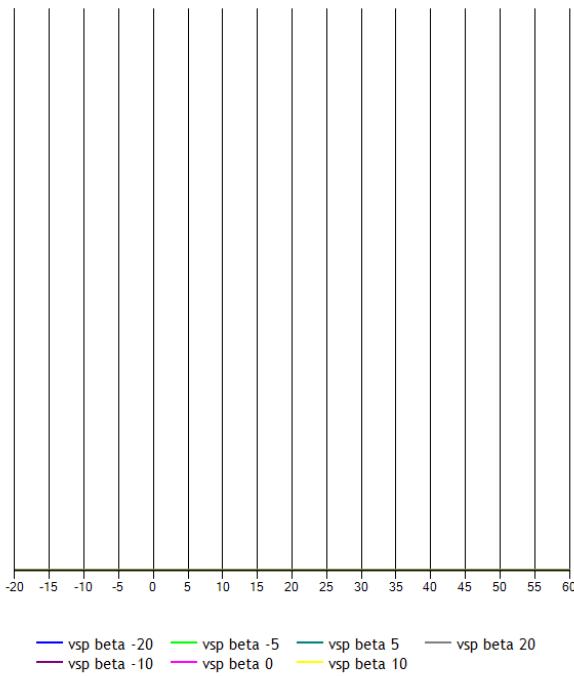


DRAG DUE TO SPEEDBRAKE



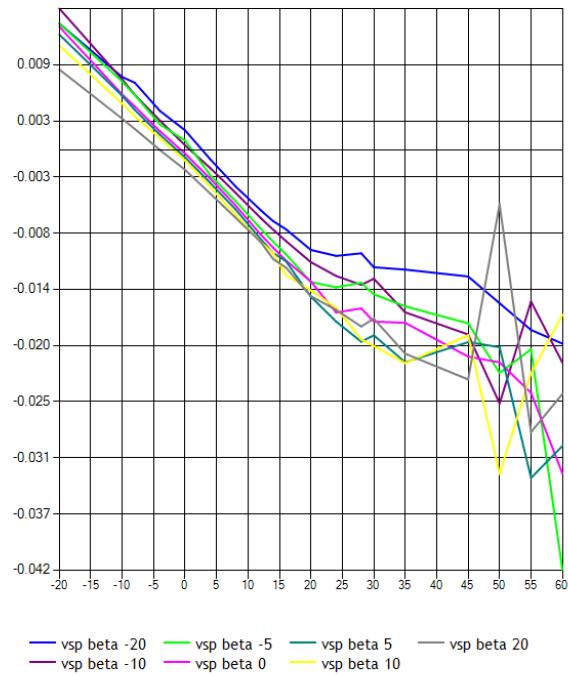
DRAG DUE TO SPOILERS LEFT

CFXDSPL (alpha,beta,spoiler-left=0)



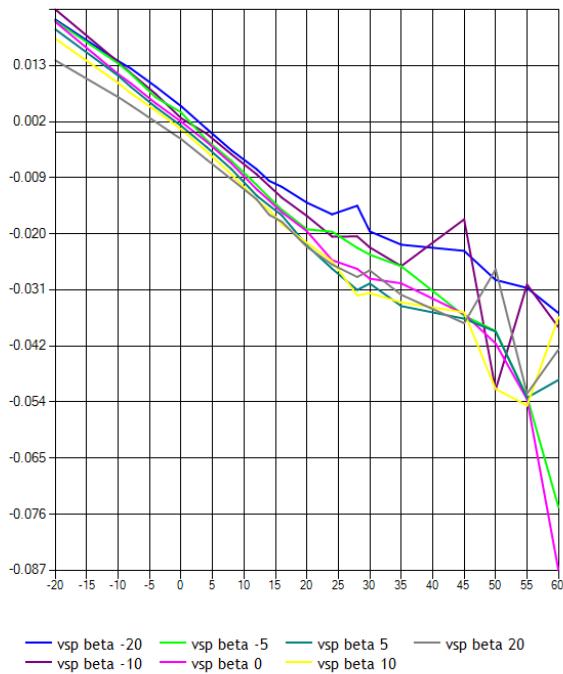
DRAG DUE TO SPOILERS LEFT

CFXDSPL (alpha,beta,spoiler-left=20)



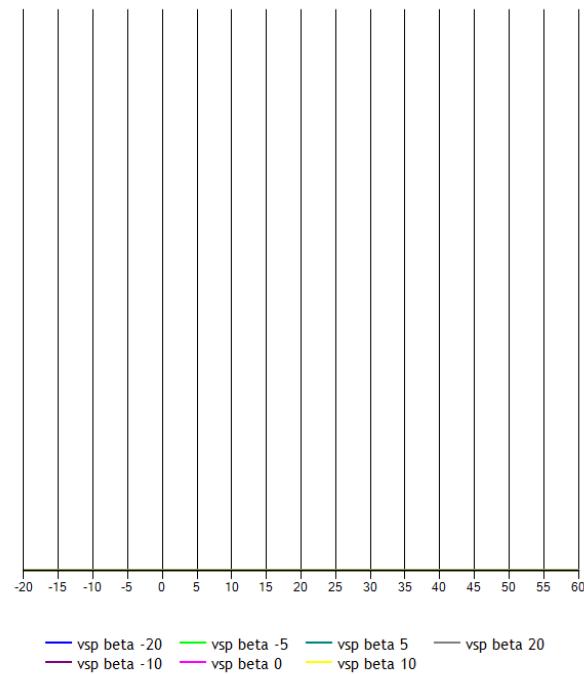
DRAG DUE TO SPOILERS LEFT

CFXDSPL (alpha,beta,spoiler-left=50)



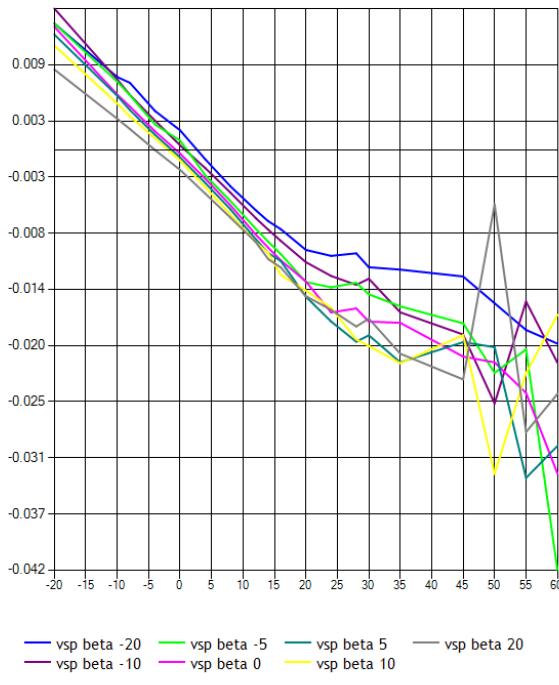
DRAG DUE TO SPOILERS RIGHT

CFXDSPR (alpha,beta,spoiler-right=0)



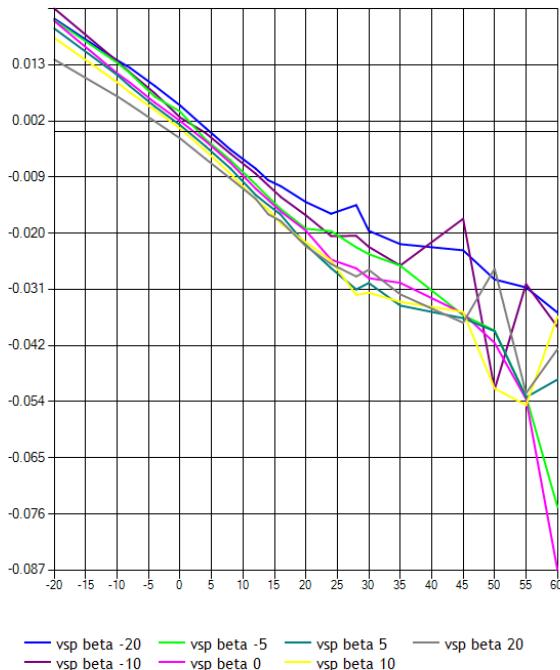
DRAG DUE TO SPOILERS RIGHT

CFXDSPR (alpha,beta,spoiler-right=20)



DRAG DUE TO SPOILERS RIGHT

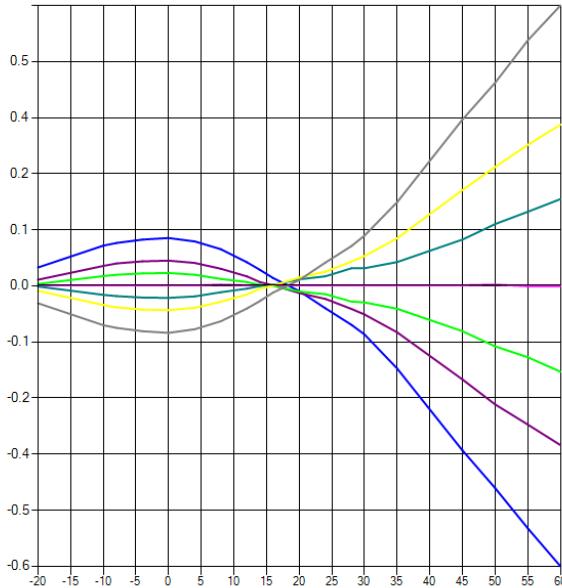
CFXDSPR (alpha,beta,spoiler-right=50)



SIDE

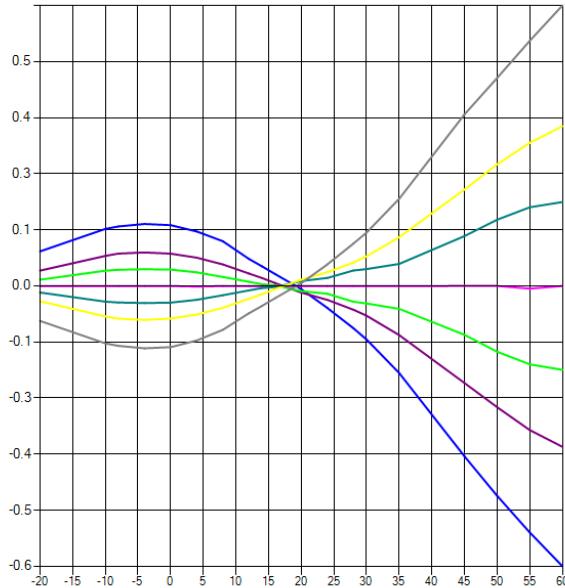
BASE SIDEFORCE

CFYB (alpha,beta,elevator=-20)



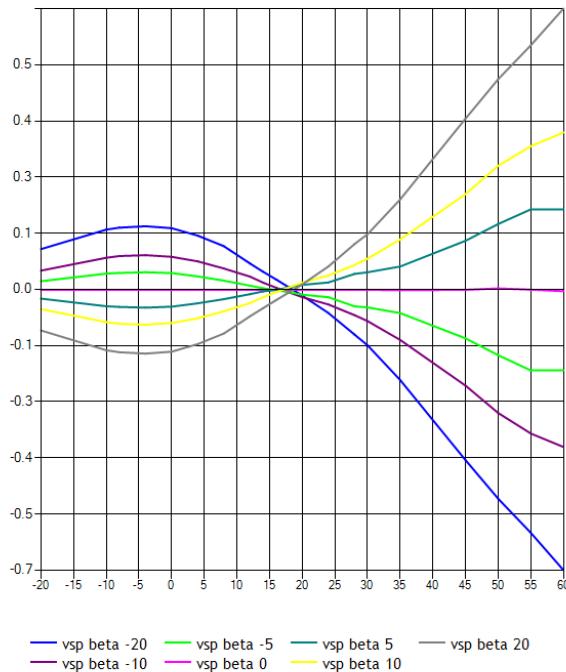
BASE SIDEFORCE

CFYB (alpha,beta,elevator=-10)



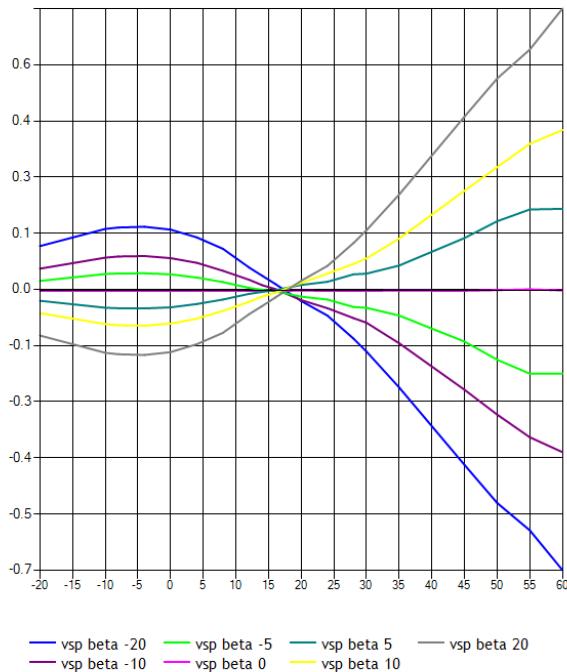
BASE SIDEFORCE

CFYB (alpha,beta,elevator=-5)



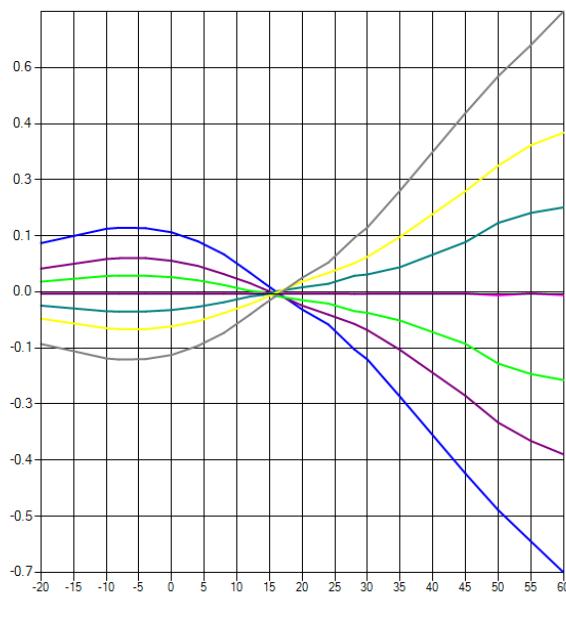
BASE SIDEFORCE

CFYB (alpha,beta,elevator=0)



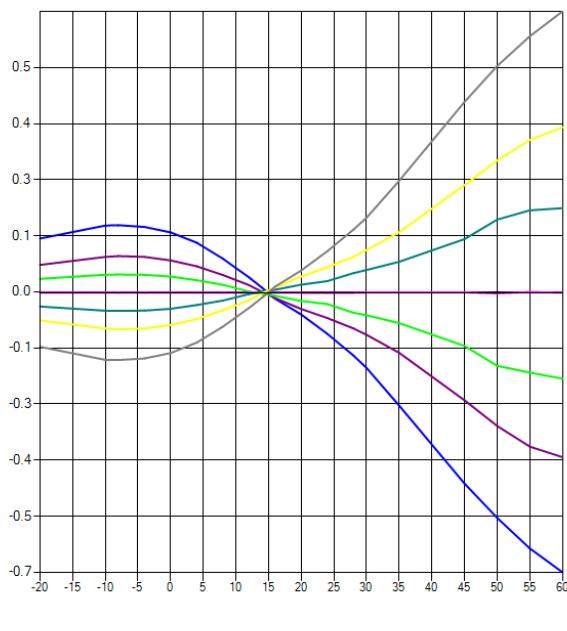
BASE SIDEFORCE

CFYB (alpha,beta,elevator=5)

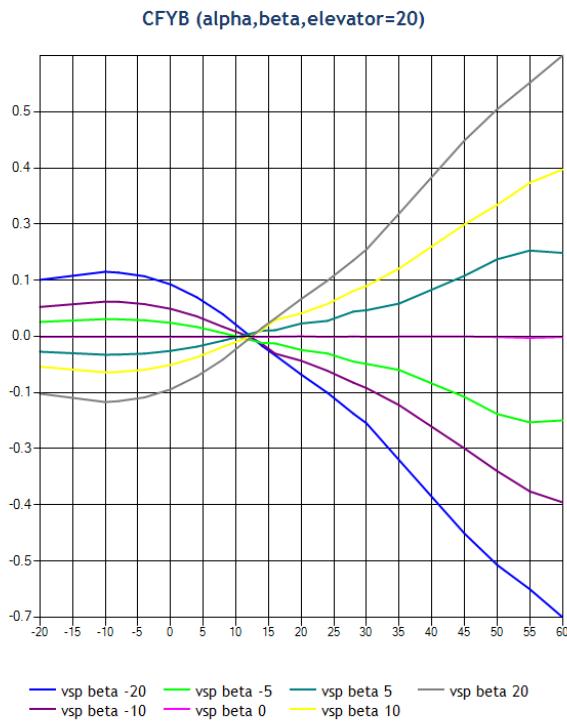


BASE SIDEFORCE

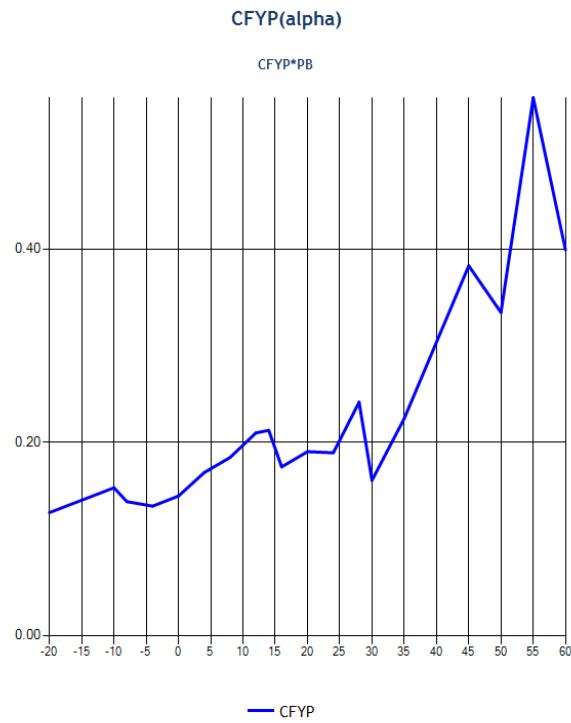
CFYB (alpha,beta,elevator=10)



BASE SIDEFORCE



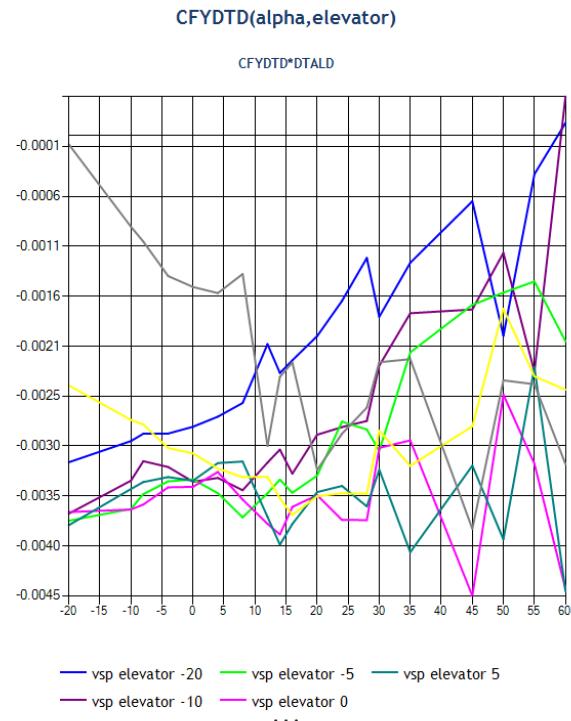
SIDE FORCE DERIVATIVE MOMENT DUE TO ROLL RATE



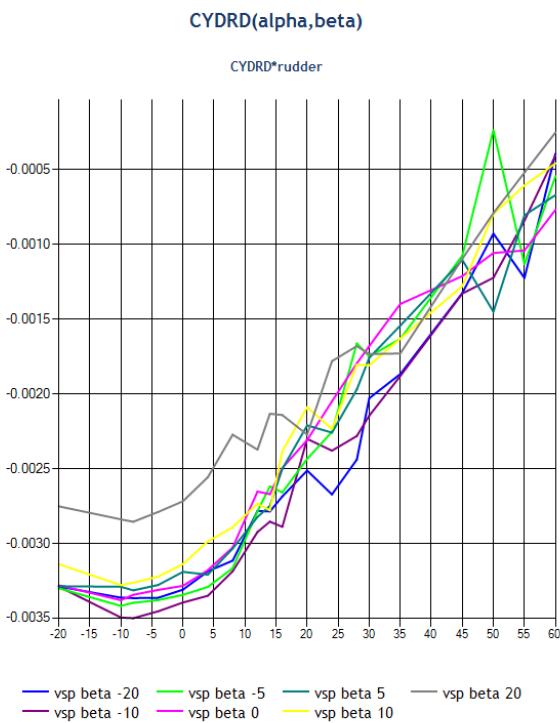
SIDE FORCE DERIVATIVE MOMENT DUE TO YAW RATE



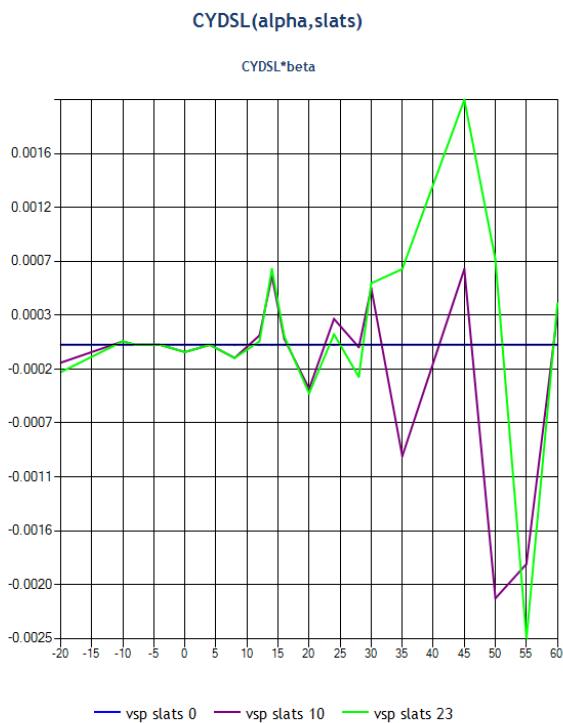
SIDE FORCE DUE TO DIFFERENTIAL TAIL DEFLECTION



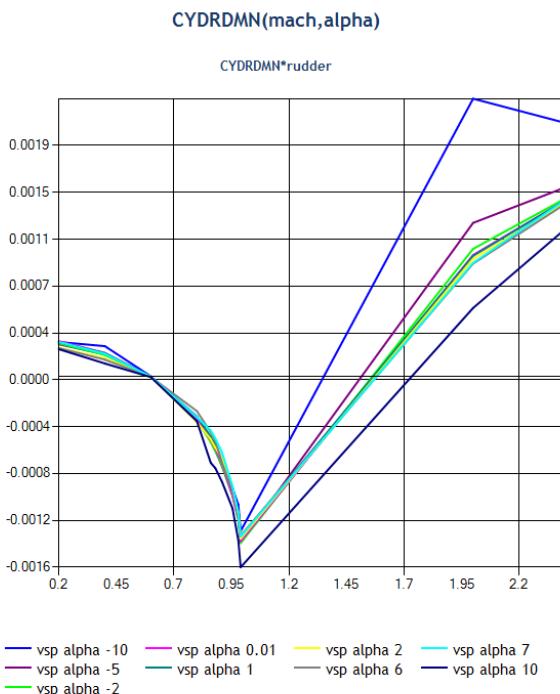
SIDE FORCE DUE TO RUDDER DEFLECTION



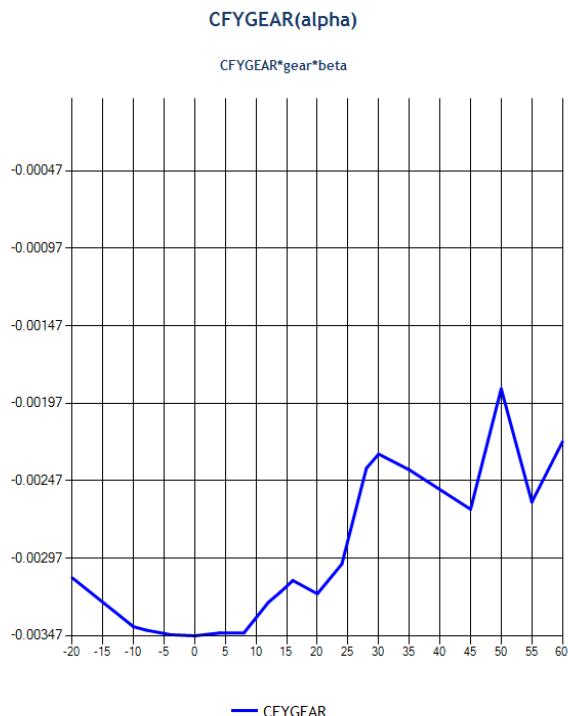
SIDE FORCE DUE TO SLATS



SIDEFORCE CHANGE DUE TO MACH DUE TO RUDDER DEFLECTION

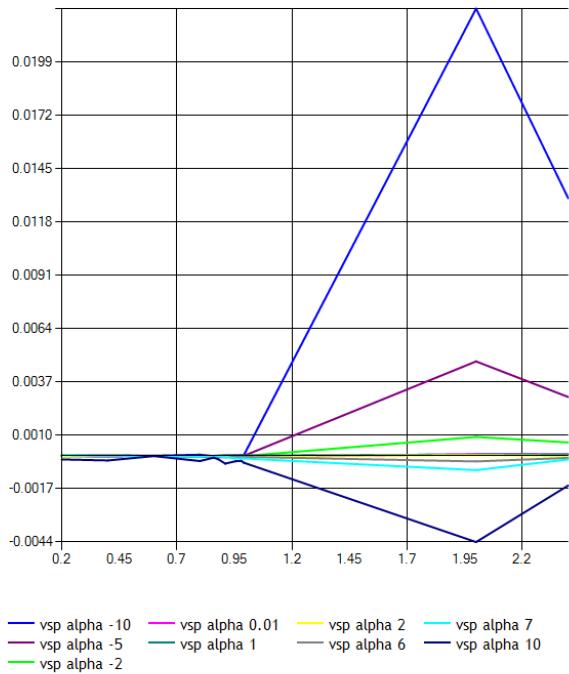


SIDEFORCE DUE TO GEAR



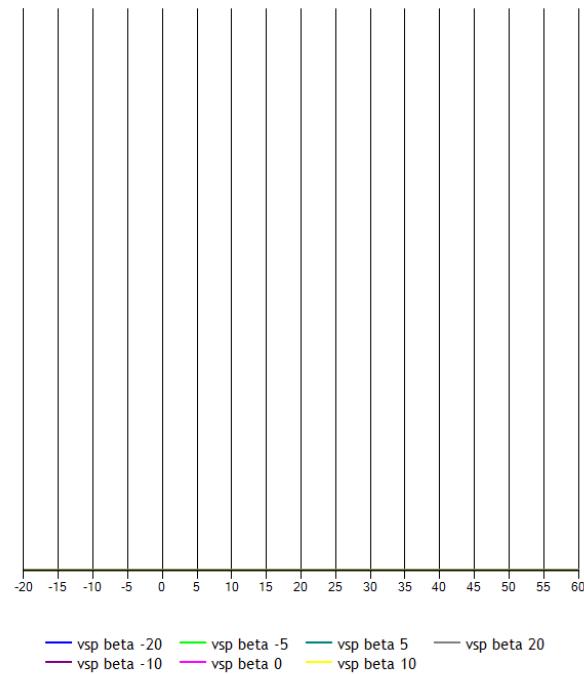
SIDEFORCE DUE TO MACH

CFYMN(mach,alpha)



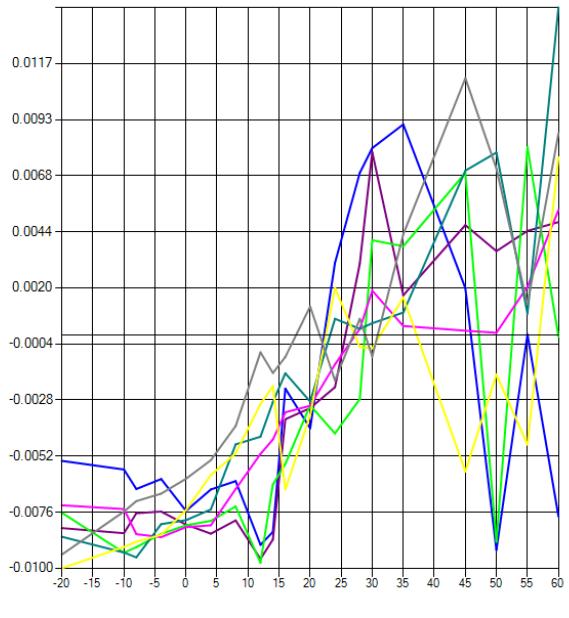
SIDEFORCE DUE TO SPOILERS LEFT

CFYDSPL (alpha,beta,spoiler-left=0)



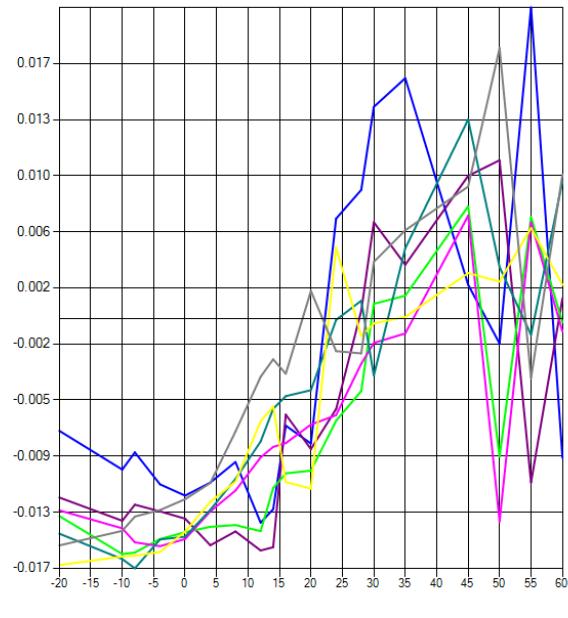
SIDEFORCE DUE TO SPOILERS LEFT

CFYDSPL (alpha,beta,spoiler-left=20)



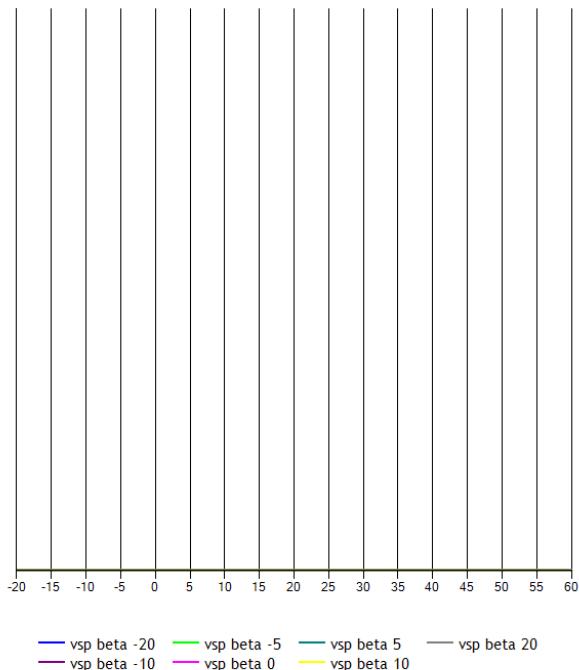
SIDEFORCE DUE TO SPOILERS LEFT

CFYDSPL (alpha,beta,spoiler-left=50)



SIDEFORCE DUE TO SPOILERS RIGHT

CFYDSPR (alpha,beta,spoiler-right=0)



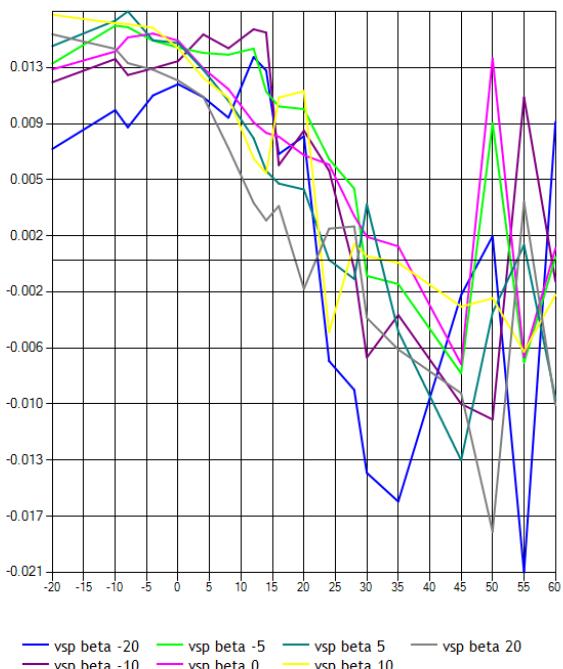
SIDEFORCE DUE TO SPOILERS RIGHT

CFYDSPR (alpha,beta,spoiler-right=20)



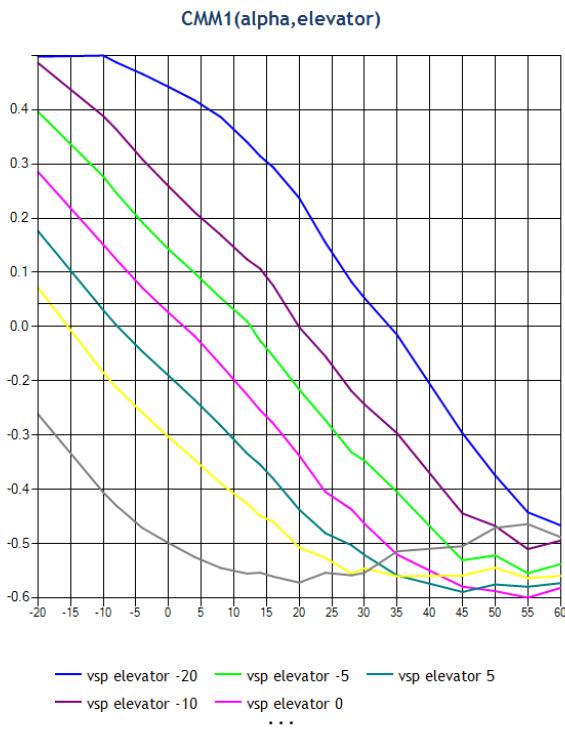
SIDEFORCE DUE TO SPOILERS RIGHT

CFYDSPR (alpha,beta,spoiler-right=50)

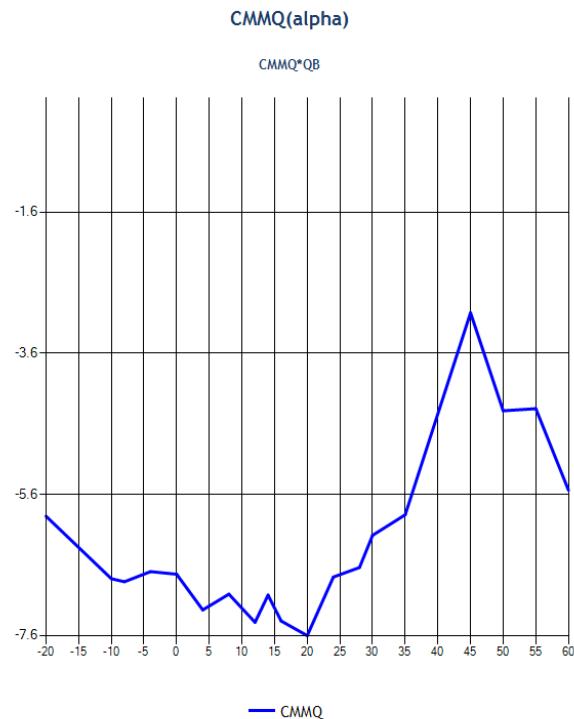


PITCH

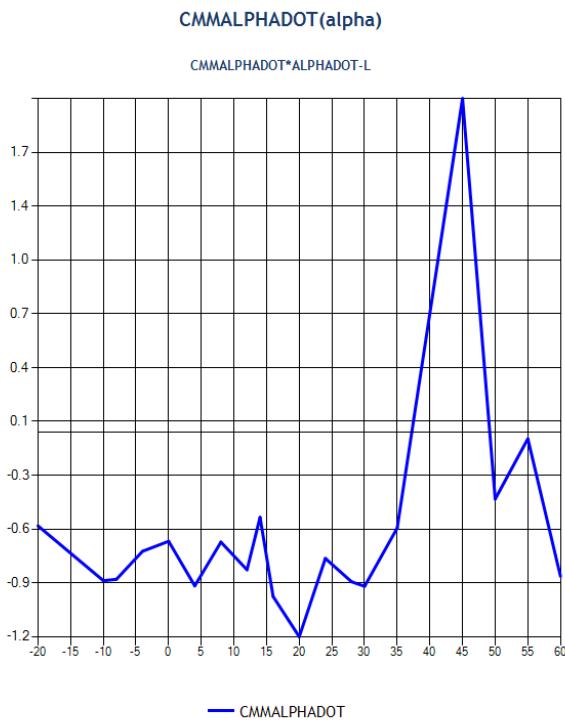
BASE PITCHING MOMENT



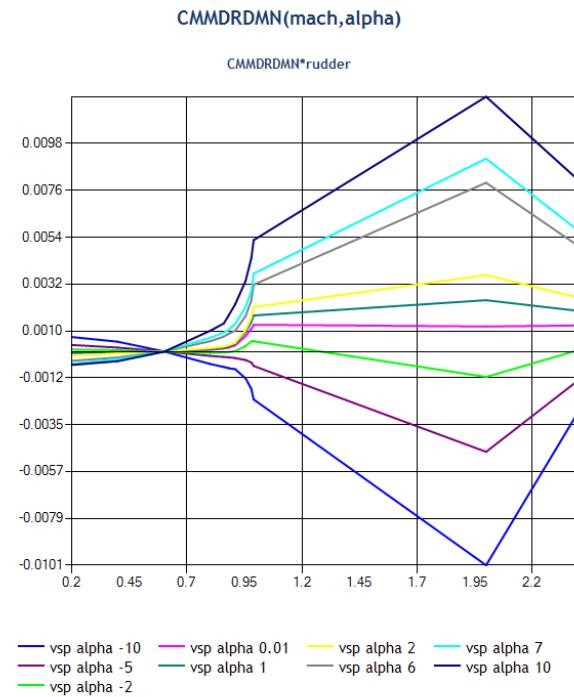
PITCH DAMPING DERIVATIVE



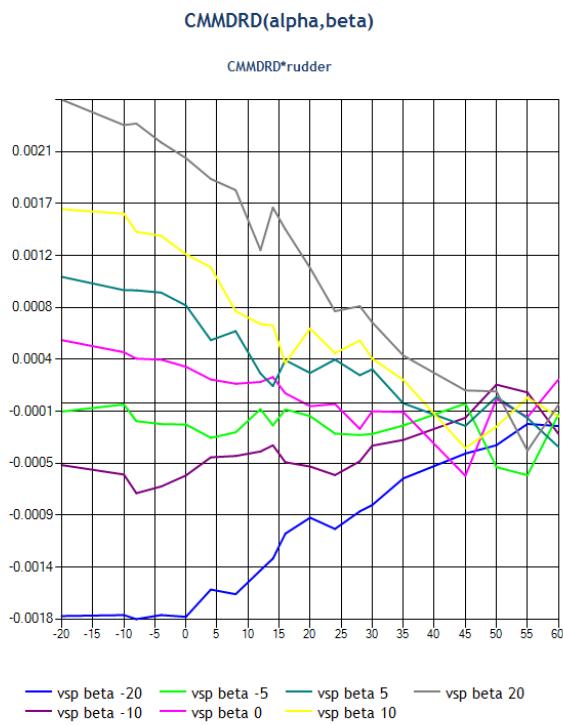
PITCH DERIVATIVE MOMENT DUE TO ALPHA DOT



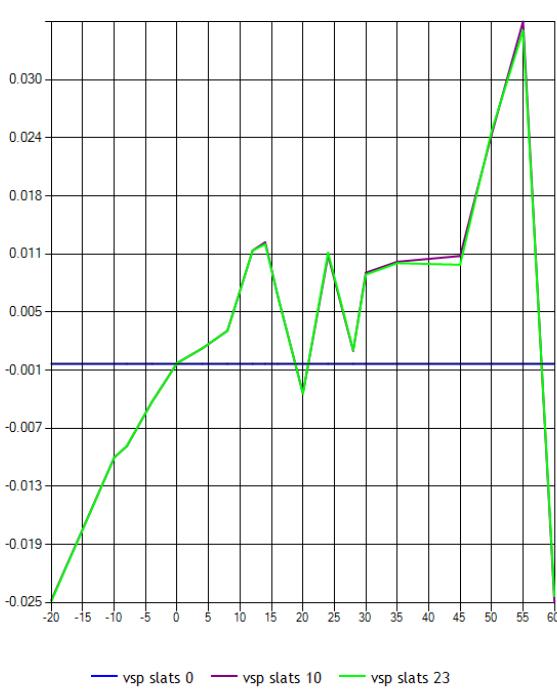
PITCH MOMENT CHANGE DUE TO MACH DUE TO RUDDER DEFLECTION



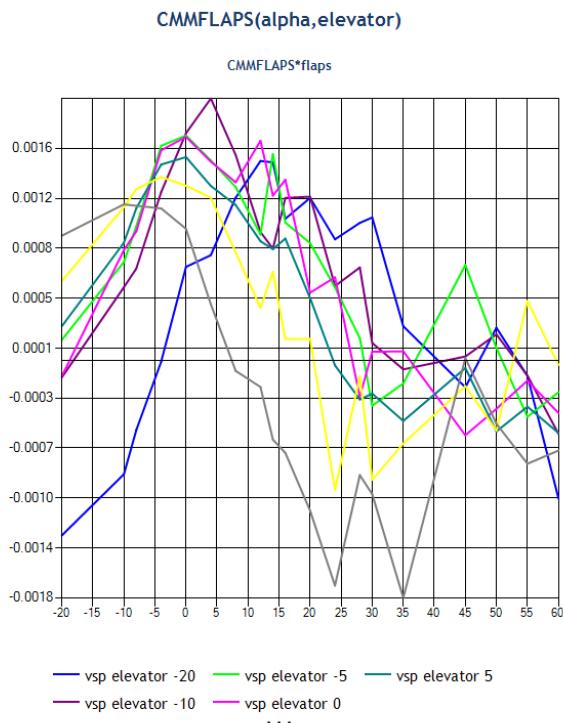
PITCH MOMENT DUE TO RUDDER DEFLECTION



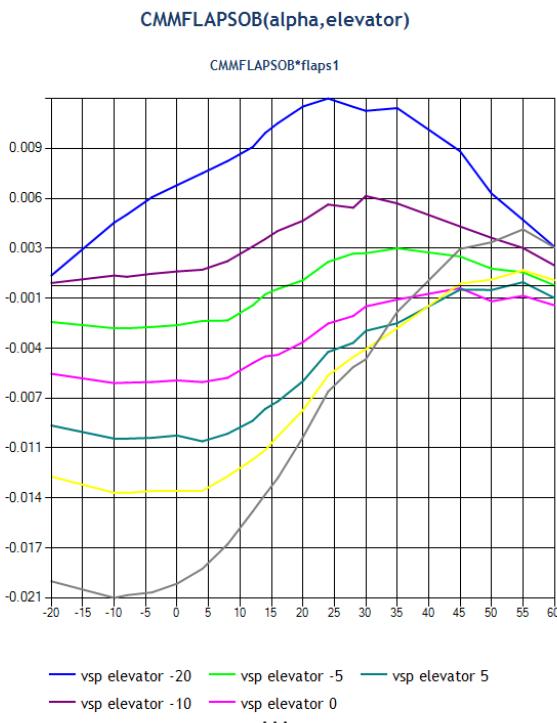
PITCH MOMENT DUE TO SLATS



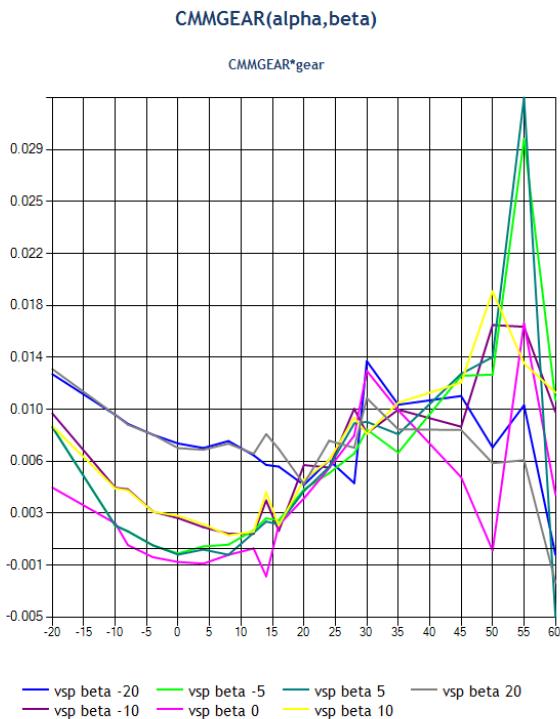
PITCHING MOMENT DUE TO FLAPS INBOARD



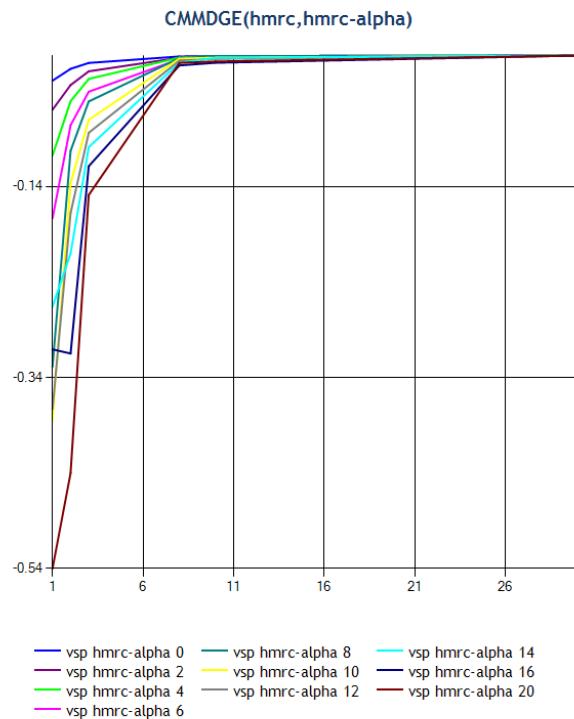
PITCHING MOMENT DUE TO FLAPS OUTBOARD



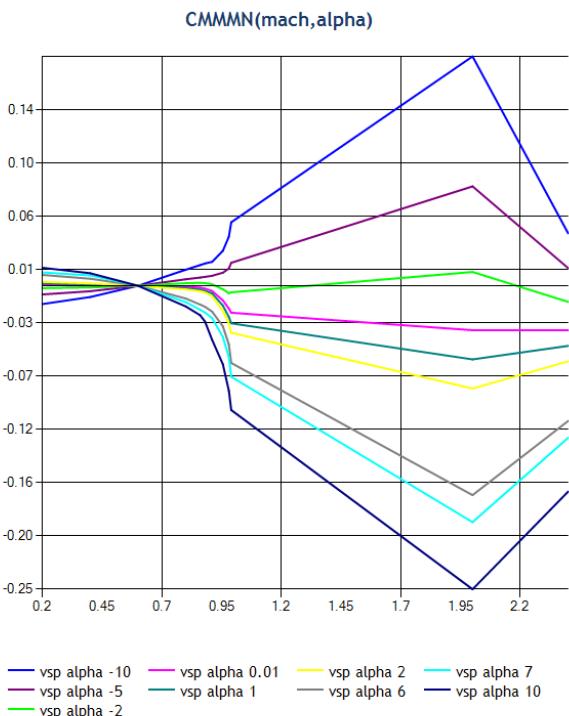
PITCHING MOMENT DUE TO GEAR



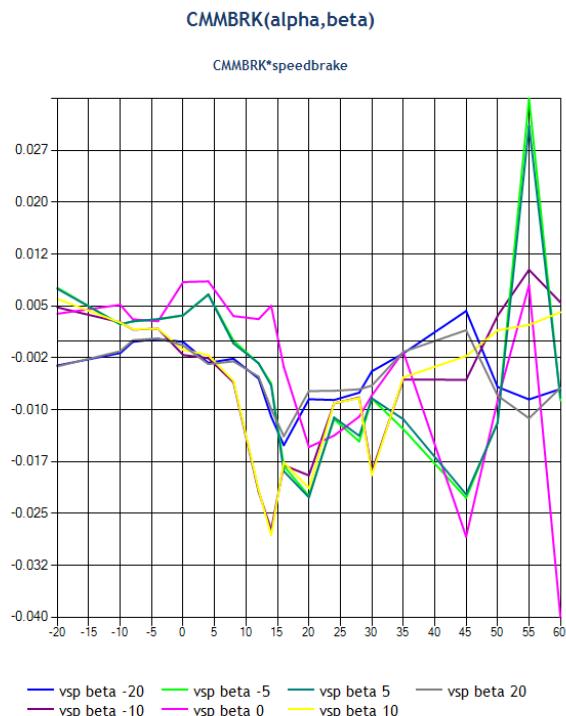
PITCHING MOMENT DUE TO GROUND EFFECT



PITCHING MOMENT DUE TO MACH

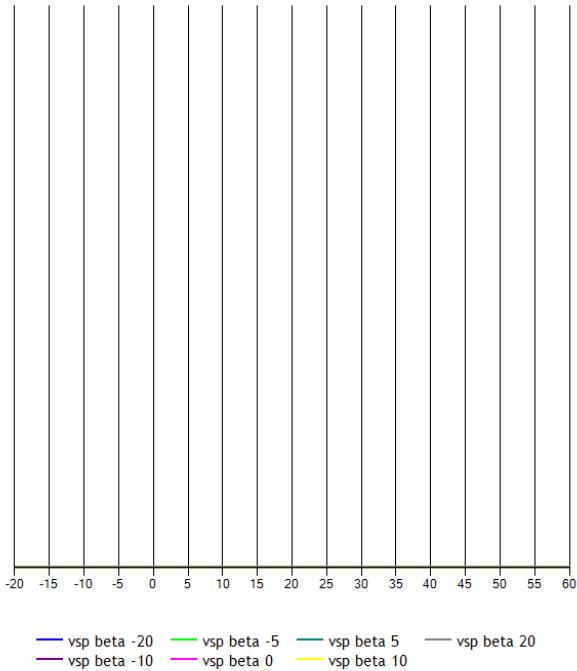


PITCHING MOMENT DUE TO SPEEDBRAKE



PITCHING MOMENT DUE TO SPOILERS LEFT

CMMDSPL (alpha,beta,spoiler-left=0)



PITCHING MOMENT DUE TO SPOILERS LEFT

CMMDSPL (alpha,beta,spoiler-left=20)



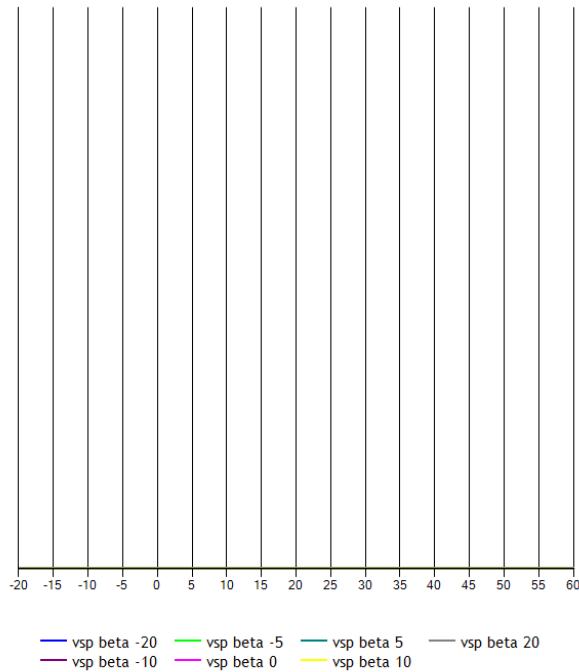
PITCHING MOMENT DUE TO SPOILERS LEFT

CMMDSPL (alpha,beta,spoiler-left=50)



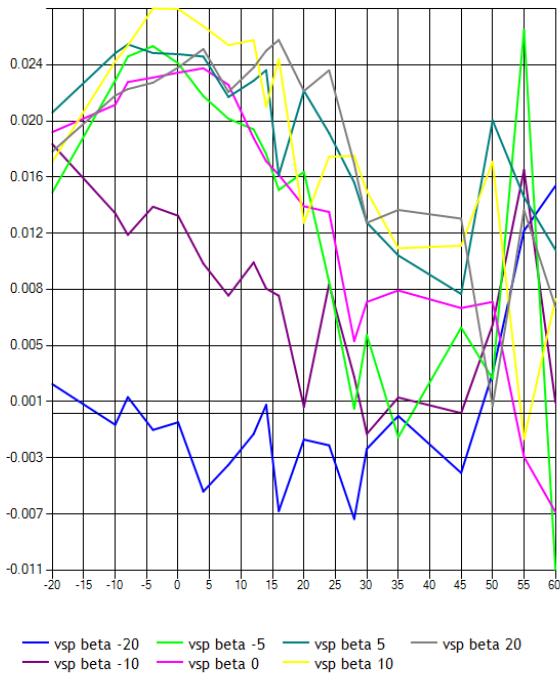
PITCHING MOMENT DUE TO SPOILERS RIGHT

CMMDSPR (alpha,beta,spoiler-right=0)



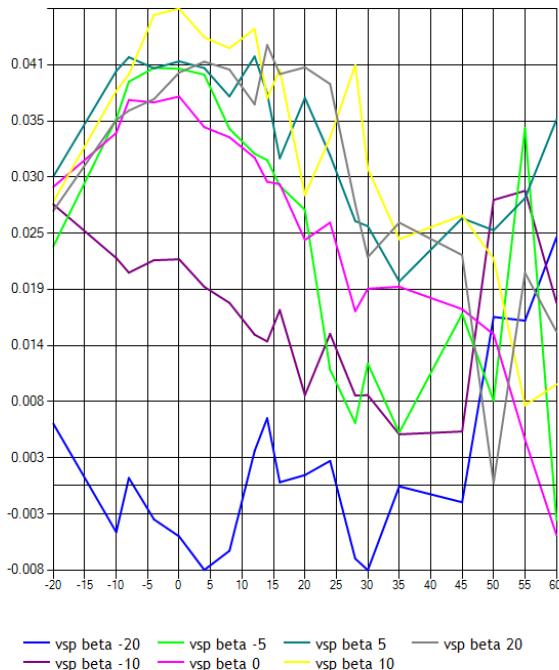
PITCHING MOMENT DUE TO SPOILERS RIGHT

CMMDSPR (alpha,beta,spoiler-right=20)



PITCHING MOMENT DUE TO SPOILERS RIGHT

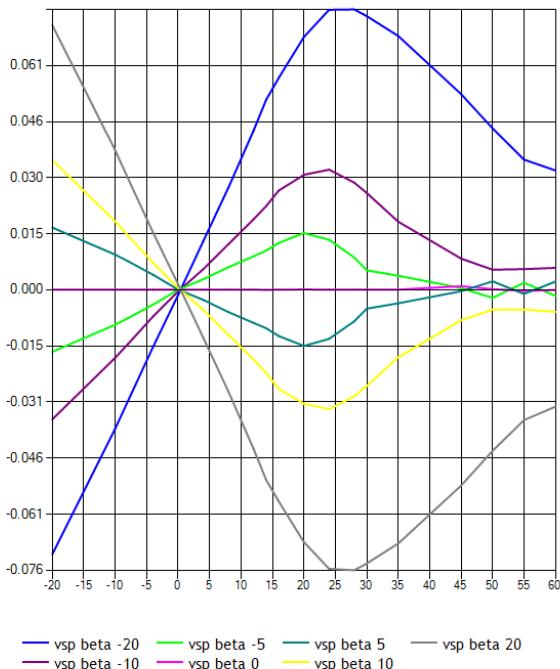
CMMDSPR (alpha,beta,spoiler-right=50)



ROLL

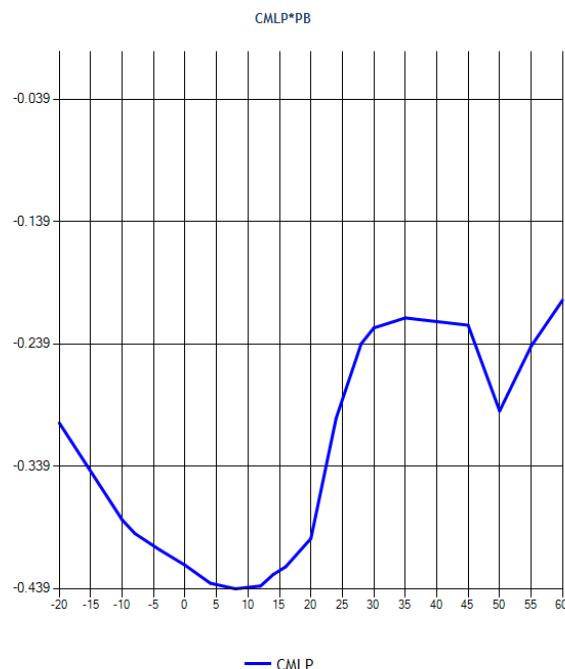
BASE ROLLING MOMENT

CML1(alpha,beta)

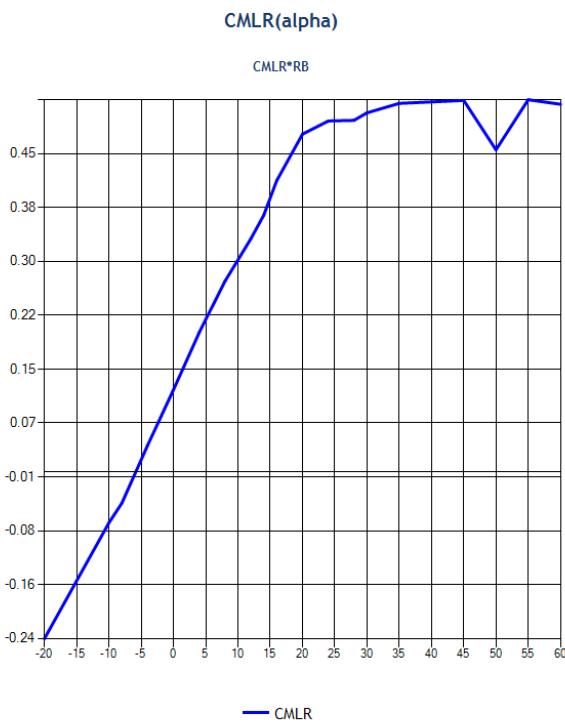


ROLL DAMPING DERIVATIVE

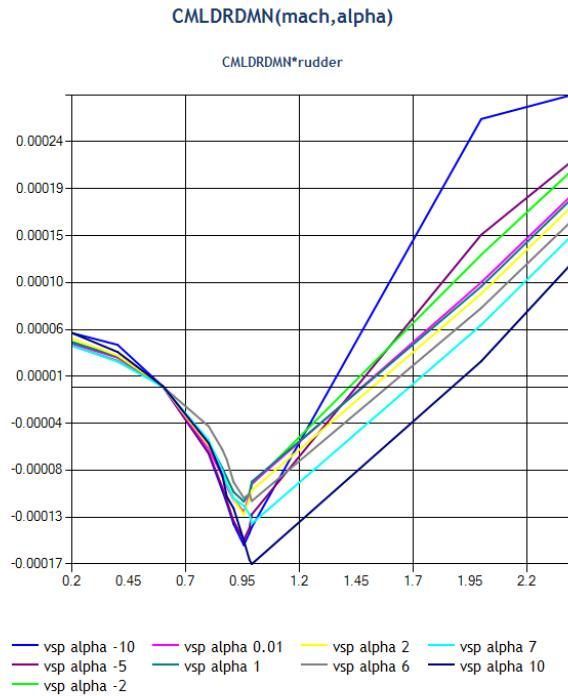
CMLP(alpha)



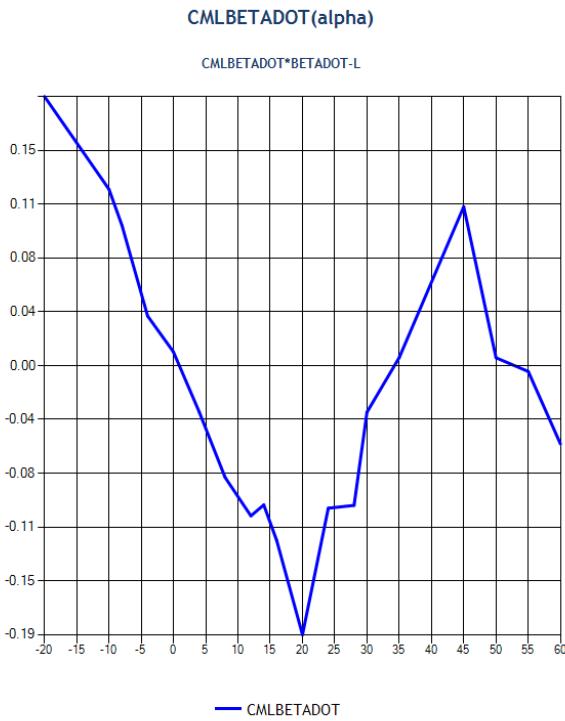
ROLL DERIVATIVE MOMENT DUE TO YAW RATE



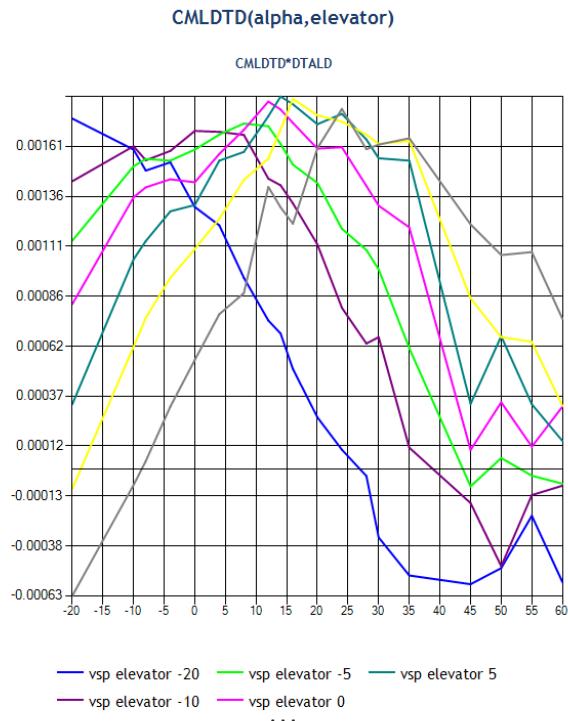
ROLL MOMENT CHANGE DUE TO MACH DUE TO RUDDER DEFLECTION



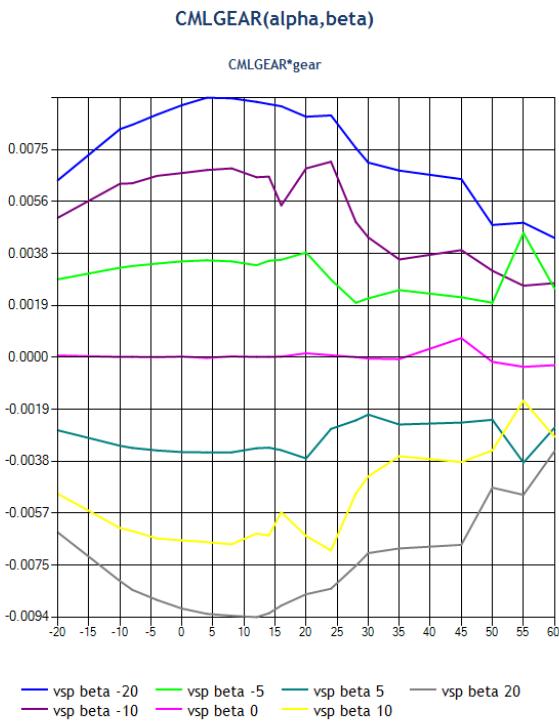
ROLL MOMENT DERIVATIVE FOR BETA DOT



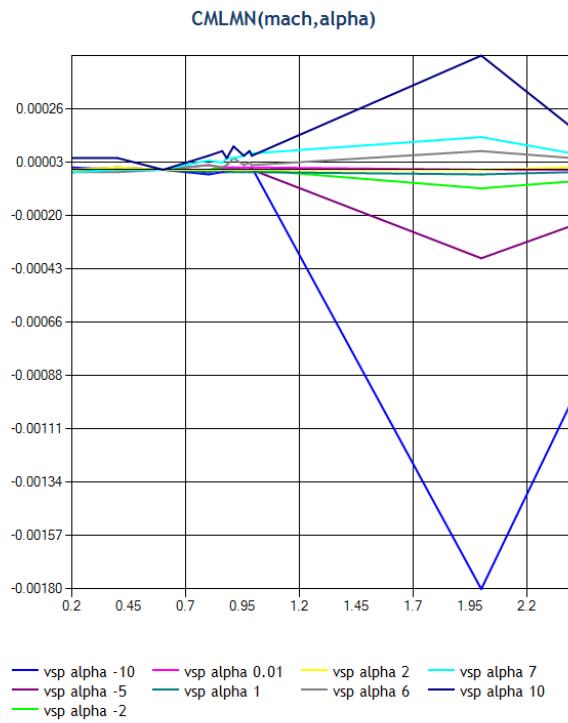
ROLL MOMENT DUE TO DIFFERENTIAL TAIL DEFLECTION



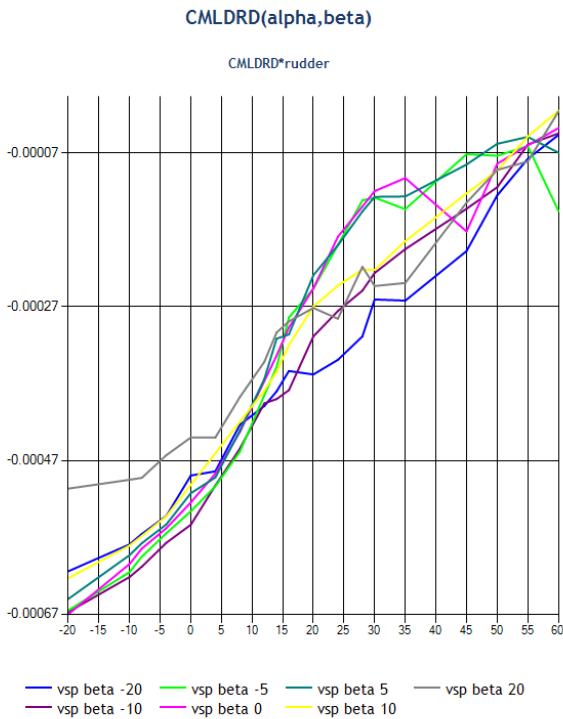
ROLL MOMENT DUE TO GEAR



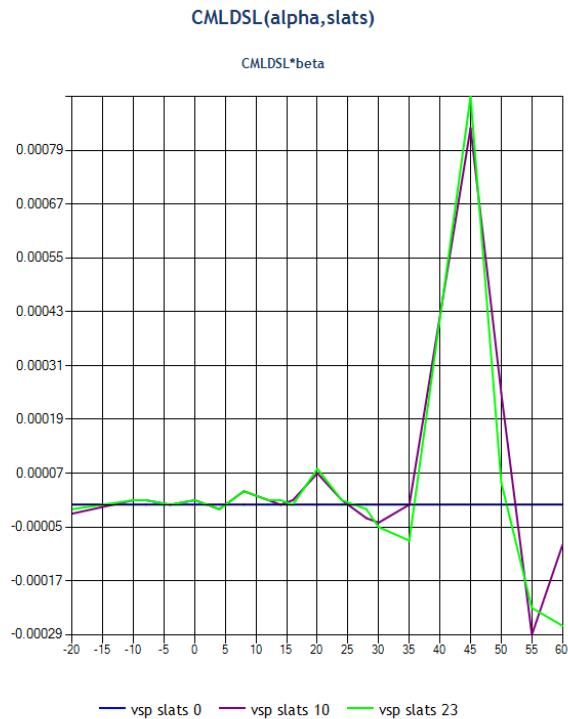
ROLL MOMENT DUE TO MACH



ROLL MOMENT DUE TO RUDDER DEFLECTION

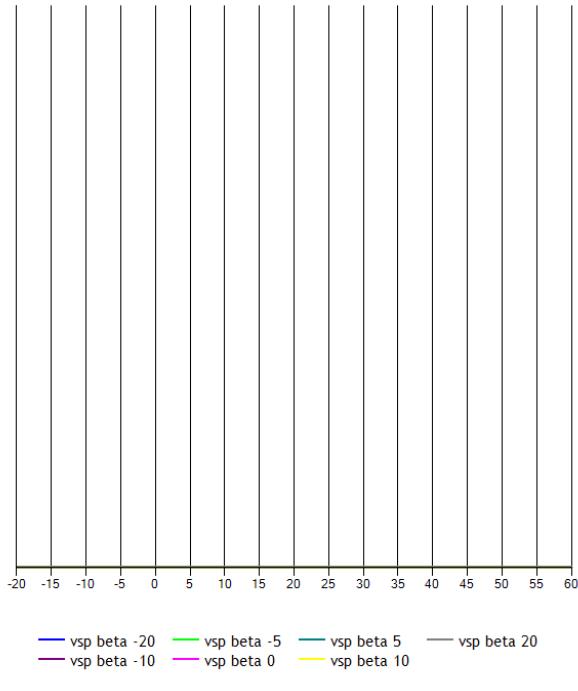


ROLL MOMENT DUE TO SLATS



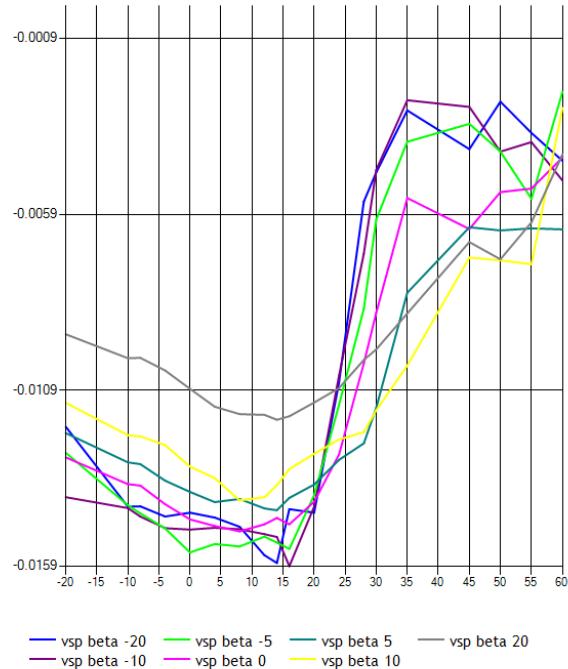
ROLL MOMENT DUE TO SPOILERS LEFT

CMLDSPL (alpha,beta,spoiler-left=0)



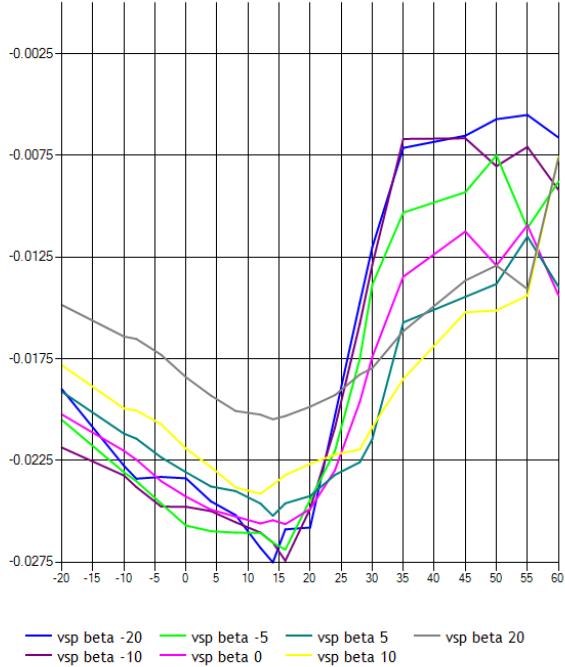
ROLL MOMENT DUE TO SPOILERS LEFT

CMLDSPL (alpha,beta,spoiler-left=20)



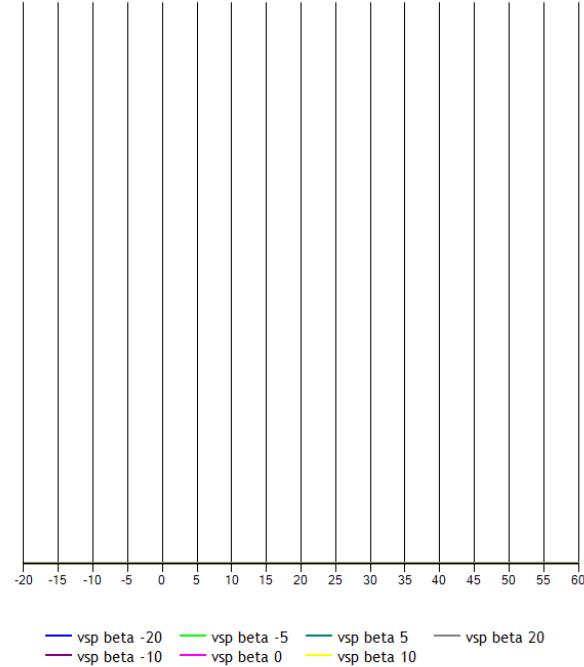
ROLL MOMENT DUE TO SPOILERS LEFT

CMLDSPL (alpha,beta,spoiler-left=50)

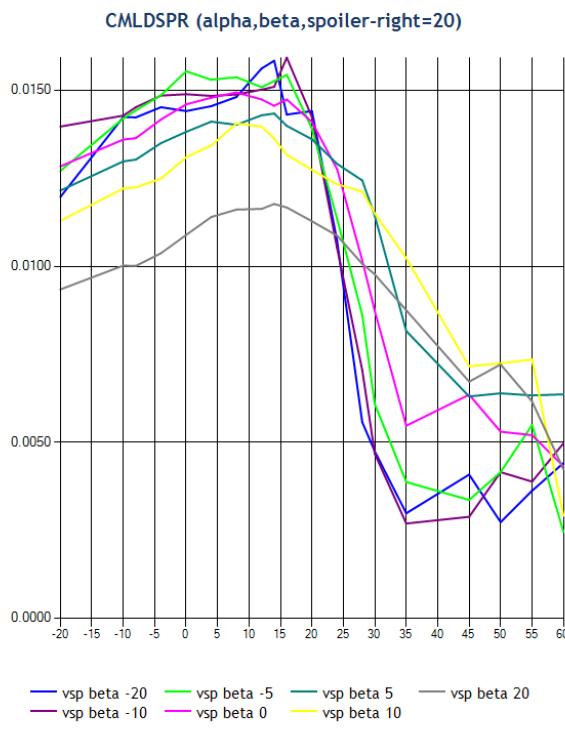


ROLL MOMENT DUE TO SPOILERS RIGHT

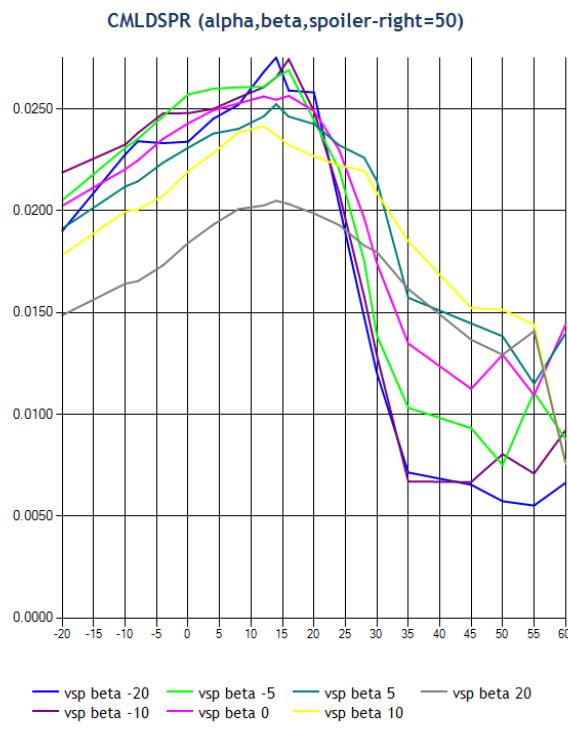
CMLDSPR (alpha,beta,spoiler-right=0)



ROLL MOMENT DUE TO SPOILERS RIGHT

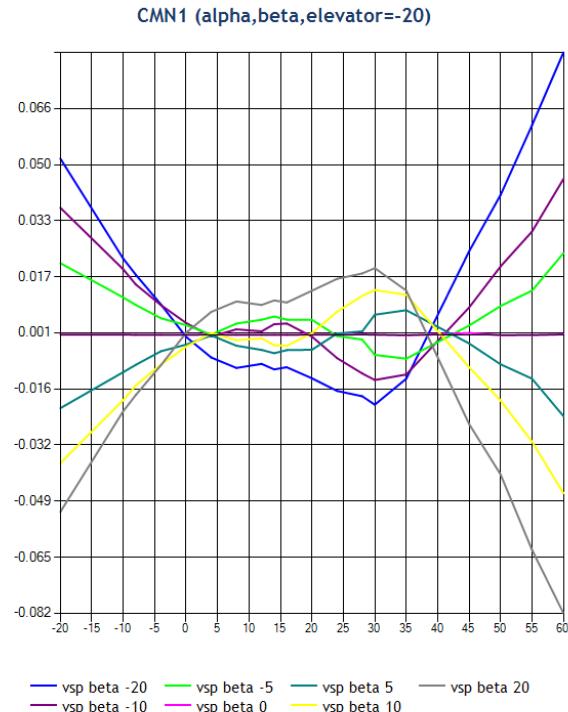


ROLL MOMENT DUE TO SPOILERS RIGHT

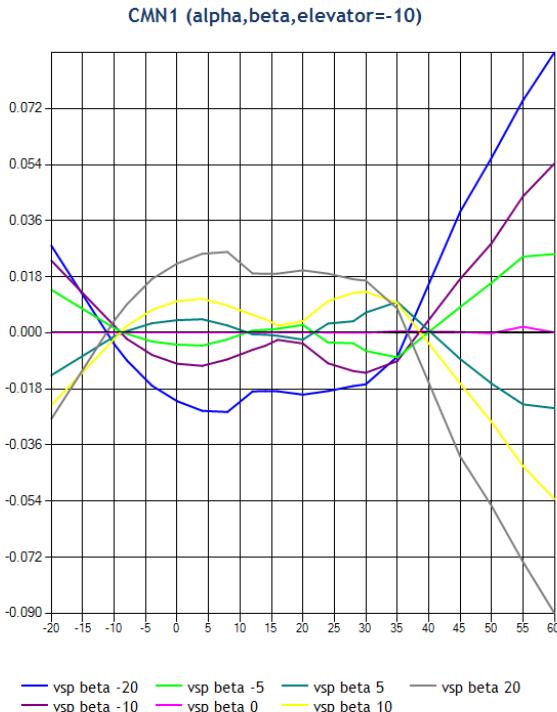


YAW

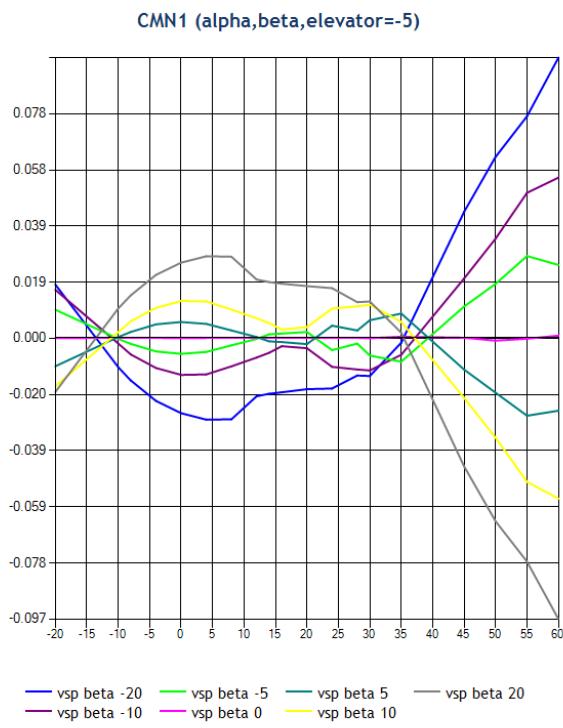
BASE YAWING MOMENT



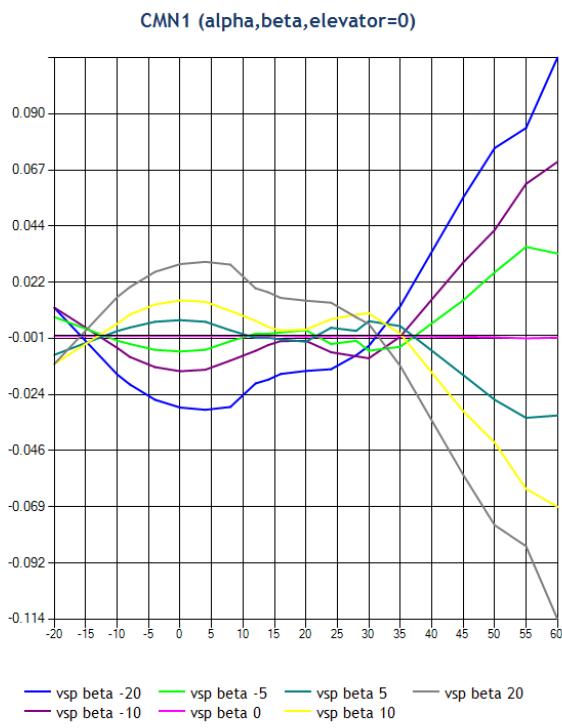
BASE YAWING MOMENT



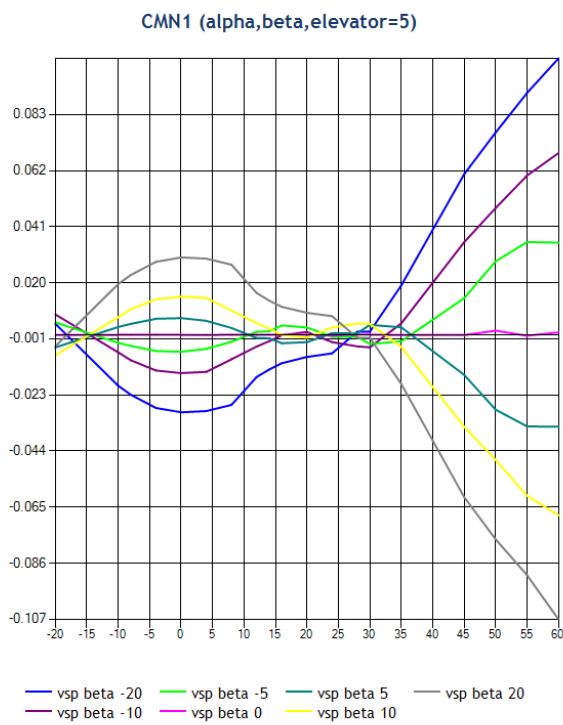
BASE YAWING MOMENT



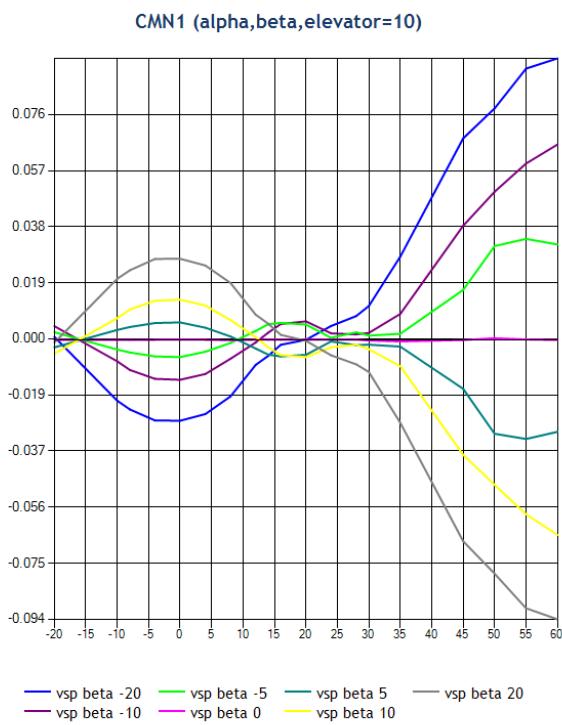
BASE YAWING MOMENT



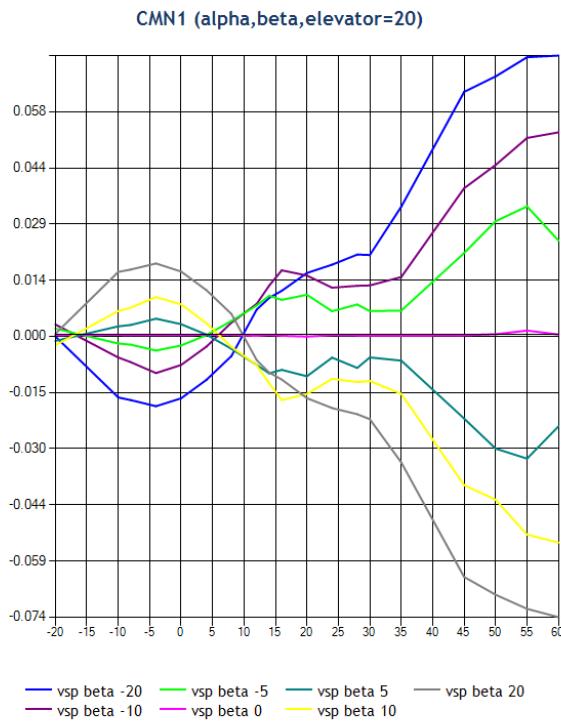
BASE YAWING MOMENT



BASE YAWING MOMENT



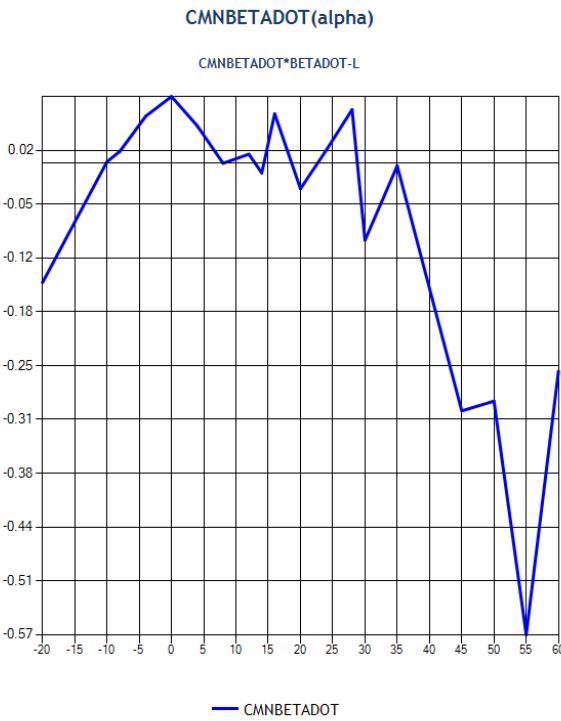
BASE YAWING MOMENT



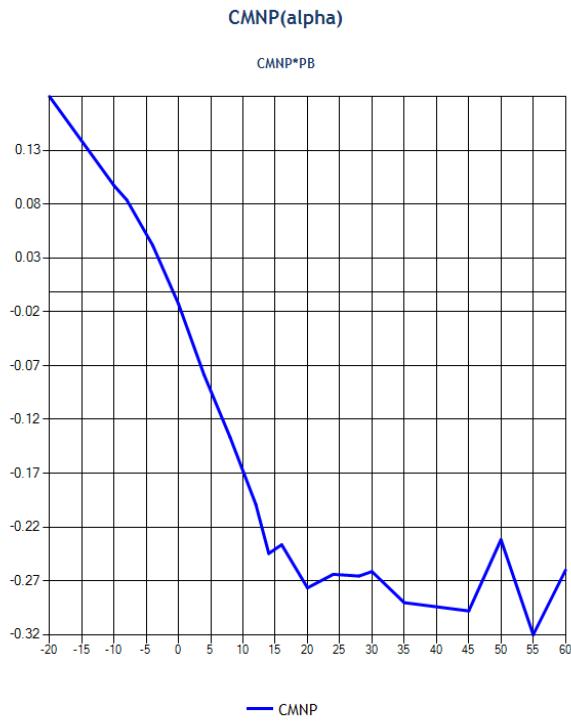
YAW DAMPING DERIVATIVE



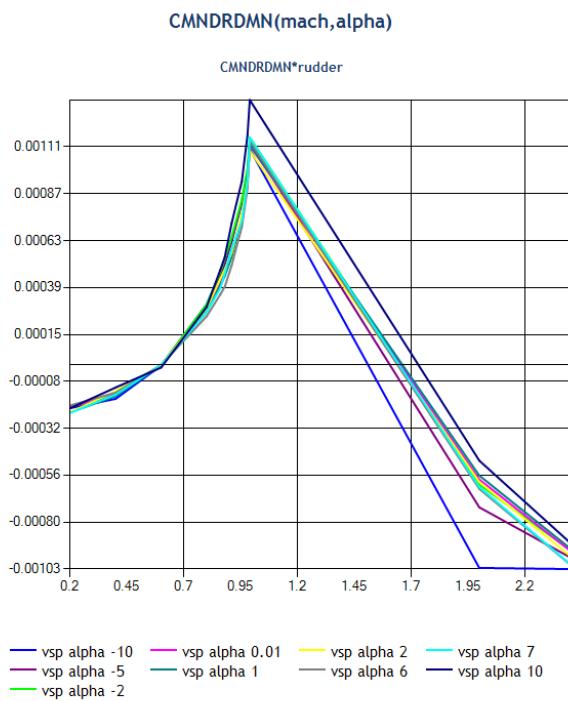
YAW DERIVATIVE MOMENT DUE TO BETADOT



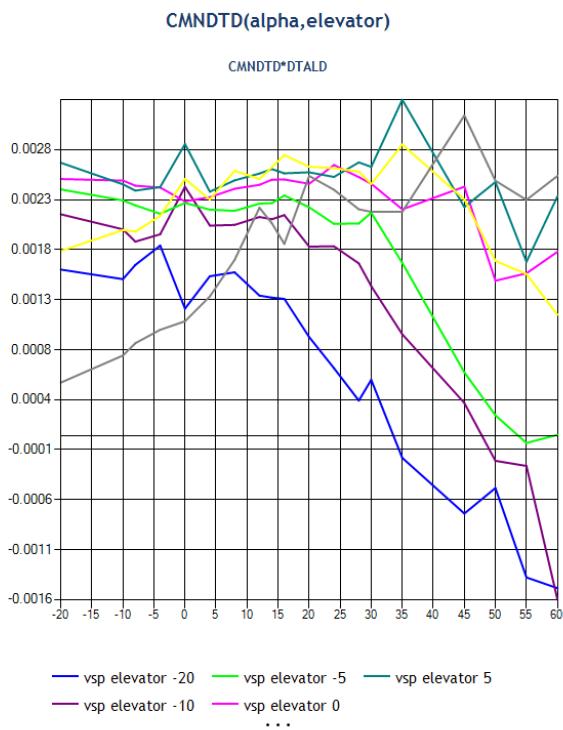
YAW DERIVATIVE MOMENT DUE TO ROLL RATE



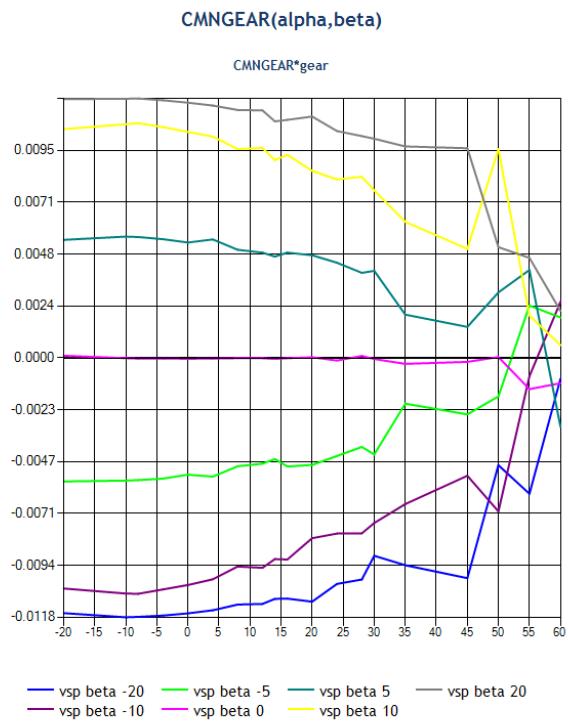
YAWING MOMENT CHANGE DUE TO MACH DUE TO RUDDER DEFLECTION



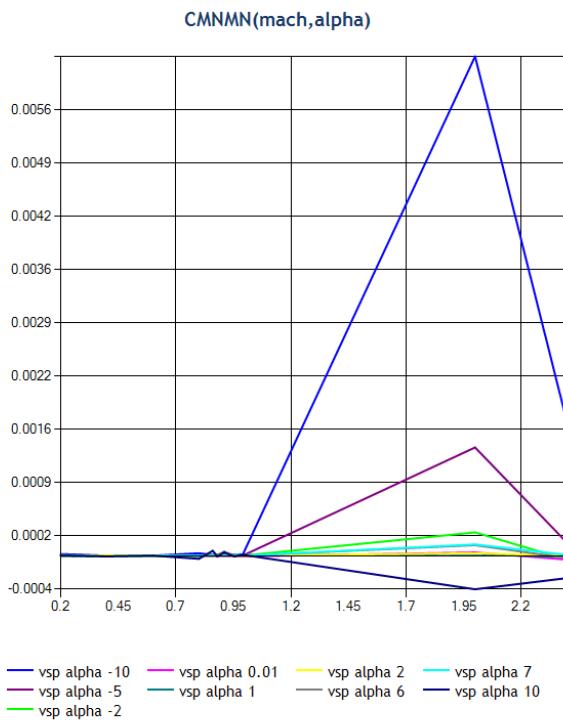
YAWING MOMENT DUE TO DIFFERENTIAL TAIL DEFLECTION



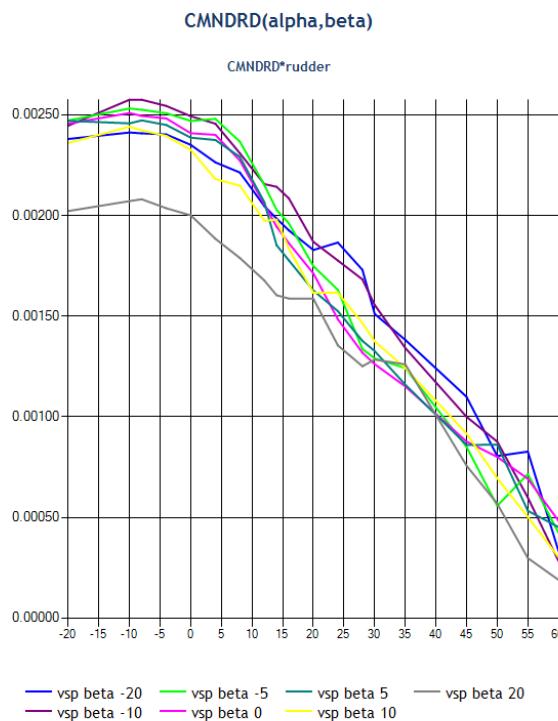
YAWING MOMENT DUE TO GEAR



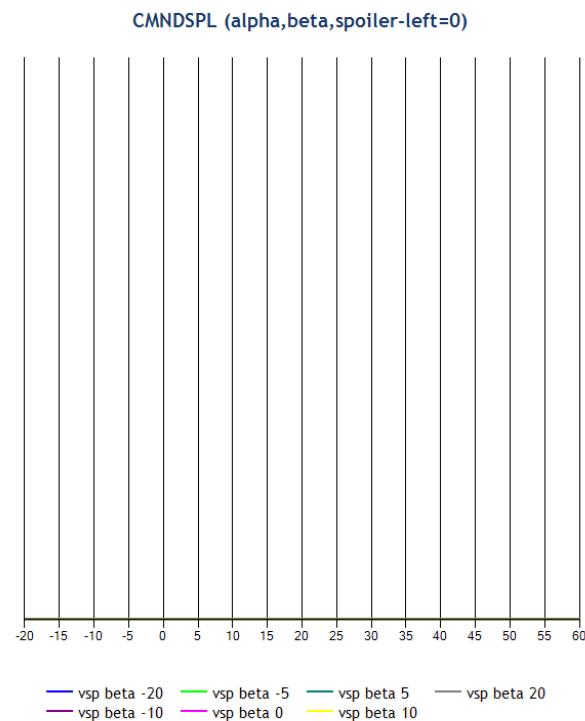
YAWING MOMENT DUE TO MACH



YAWING MOMENT DUE TO RUDDER DEFLECTION



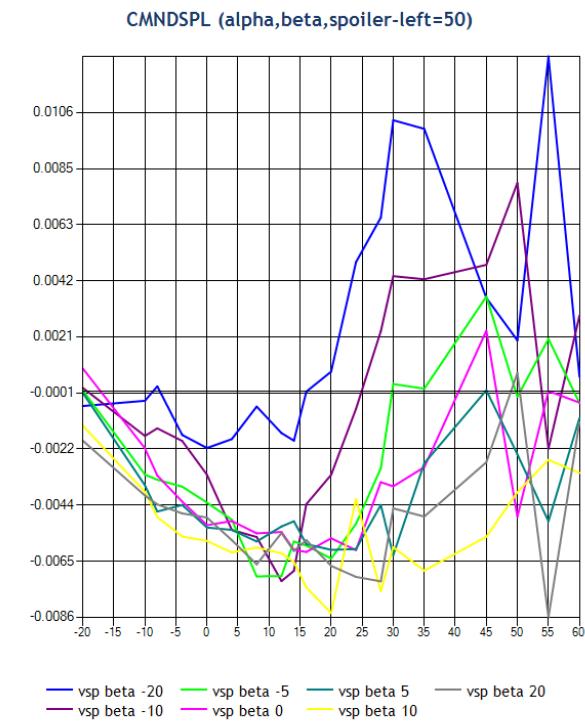
YAWING MOMENT DUE TO SPOILERS LEFT



YAWING MOMENT DUE TO SPOILERS LEFT

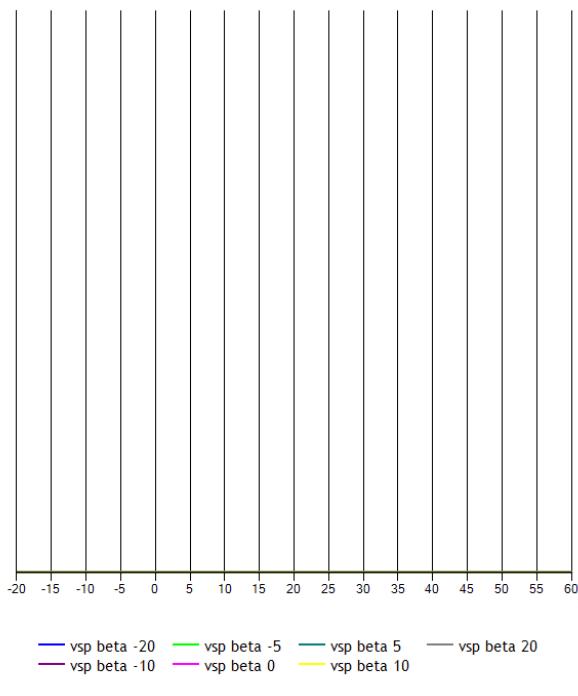


YAWING MOMENT DUE TO SPOILERS LEFT



YAWING MOMENT DUE TO SPOILERS RIGHT

CMNDSPR (alpha,beta,spoiler-right=0)



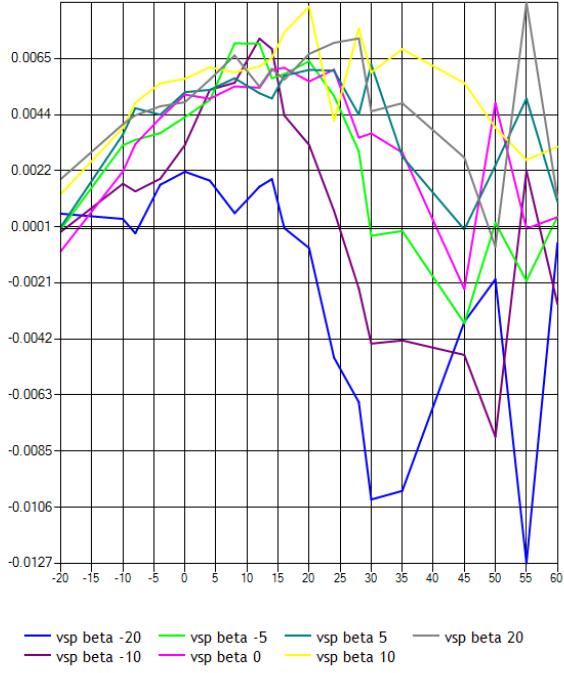
YAWING MOMENT DUE TO SPOILERS RIGHT

CMNDSPR (alpha,beta,spoiler-right=20)



YAWING MOMENT DUE TO SPOILERS RIGHT

CMNDSPR (alpha,beta,spoiler-right=50)



References

- Richard Harrison, rjh@zaretto.com: SEPECAT Jaguar Aerodynamic data built from vsaero; CG (8.4247, 0, -0.005)M, ZDAT/AED/2019/11-01, November, 2019: <http://www.zaretto.com/sites/zaretto.com/files/SEPECAT-Jaguar-data/rjh-zaretto-SEPECAT-Jaguar-aerodynamic-data-vspresso.pdf>
- Richard Harrison, rjh@zaretto.com: SEPECAT-Jaguar Aerodynamic, ZDAT/AED/2019/11-1, November 2019: <http://www.zaretto.com/sites/zaretto.com/files/SEPECAT-Jaguar-data/rjh-zaretto-SEPECAT-Jaguar-aerodynamic-data.pdf>

Aircraft Metrics

| Element | X | Y | Z | Unit |
|-----------------------------------|------|------|-------|------|
| Aerodynamic Reference Point (CoP) | 8.62 | 0.00 | -0.01 | M |

| | | | | |
|-------------|------|------|-------|---|
| Aircraft CG | 8.42 | 0.00 | -0.01 | M |
|-------------|------|------|-------|---|

| Element | Unit |
|----------------|-------|
| Wingspan | 8.54 |
| Wing Area | 24.15 |
| Wing Incidence | 1.52 |
| Chord | 3.32 |
| Horiz Tail Arm | 0.00 |
| CIMax | 1.73 |
| | ND |

Mass and balance

| Element | Unit |
|-----------------|----------|
| Empty Weight | 7000.00 |
| I _{XX} | 3418.00 |
| I _{YY} | 82395.00 |
| I _{ZZ} | 61297.00 |
| I _{XZ} | -804.00 |

| Element | X | Y | Z | Unit | Weight |
|---------|---|---|---|------|--------|
|---------|---|---|---|------|--------|

Ground Reactions

| Element | X | Y | Z | Unit | Index |
|----------------------|-------|-------|-------|------|-------|
| NOSE_LG | 3.53 | 0.00 | -2.21 | M | 0 |
| LEFT_MLG | 9.28 | -1.44 | -2.08 | M | 1 |
| RIGHT_MLG | 9.28 | 1.44 | -2.08 | M | 2 |
| NOSE | 0.00 | 0.00 | 0.00 | M | 3 |
| FRONT_LOWER_FUSELAGE | 1.65 | 0.00 | -0.16 | M | 4 |
| CANOPY | 4.24 | 0.00 | 1.31 | M | 5 |
| REAR_UPPER_FUSELAGE | 10.16 | 0.00 | 1.01 | M | 6 |
| LEFT_WING | 10.60 | -4.18 | 0.35 | M | 7 |
| RIGHT_WING | 10.60 | 4.18 | 0.35 | M | 8 |
| LEFT_HTAIL | 14.03 | -2.12 | 0.73 | M | 9 |
| RIGHT_HTAIL | 14.03 | 2.12 | 0.73 | M | 10 |
| VTAIL | 14.22 | 0.00 | 2.73 | M | 11 |

Propulsion

| Element | X | Y | Z | Unit | Feed |
|----------|-------|-------|------|------|----------------------------------|
| Adour804 | 12.92 | -0.41 | 0.20 | M | LeftWingTank [1],CentreTank [2] |
| Adour804 | 12.92 | 0.41 | 0.20 | M | RightWingTank [0],CentreTank [2] |

Tanks

| Element | X | Y | Z | Unit | Capacity | Id | Priority | Standpipe |
|---------------|------|-------|-------|------|----------|----|----------|-----------|
| RightWingTank | 9.22 | 2.09 | 0.40 | M | 3470 LBS | 0 | 2 | 100 LBS |
| LeftWingTank | 9.22 | -2.09 | 0.40 | M | 3470 LBS | 1 | 2 | 100 LBS |
| CentreTank | 8.12 | 0.00 | -0.31 | M | 4420 LBS | 2 | 1 | 100 LBS |

Systems

| Name |
|-----------------|
| Propulsion |
| autoflight |
| jaguar-sas |
| Aircraftcontrol |
| jaguar-controls |
| electrical |
| hydraulics |

Independent variables

| Name |
|------------------------------------|
| aero/alpha-deg |
| aero/alphadot-rad_sec |
| aero/beta-deg |
| aero/betadot-rad_sec |
| aero/pb |
| aero/qb |
| aero/rb |
| fcs/differential-elevator-pos-norm |
| fcs/flap-ob-pos-deg |
| fcs/flap-pos-deg |
| fcs/pitch-pos-deg |
| fcs/rudder-deg |
| fcs/slats-deg |
| fcs/speedbrake-pos-deg |
| fcs/spoiler-left-deg |
| fcs/spoiler-right-deg |
| gear/gear-pos-norm |
| position/h-agl-m |
| velocities/mach |