SWUIS-A/VULCANOIDS MISSION PREP CHECKLIST

PAYLOAD SPECIALIST CHECKLIST:

   HELMET, HARNESS, G-SUIT CKS
   PERSONAL GEAR IN FLIGHT SUIT
   NEW A/C FAM
   EGRESS REFRESHER (IF REQD)
   PRE-FLIGHT SWUIS EQUIPMENT RE-FAM
   PRE-FLIGHT A/C STOWAGE
   GPS AND MISSION TARGETING PLAN
   DETAILED FLIGHT PLANNING
   WX BRIEF
   PILOT BRIEF

PAYLOAD ENGINEER CHECKLIST:

   DONUTS
   SWUIS-A INTEGRATION & E-E TEST
   GPS RECEIVER/TITLER SETUP
   CAMCDR SETUP
   VR STATUS
   BOGEN MOUNT AXES β ALIGNMENT
   INCLINOMETER CAL & LEVEL
   LIGHT SHIELD FAB & INSTALLATION
   DOCUMENTATION PHOTOS (AS REQD)
1. MECHANICAL
   MOUNT XYBION ON BOGAN PLATFORM
   INSTALL FLIGHT FOREOPTIC/LENS
   MOUNT LIGHT SHIELD ON XYBION LENS
   MOUNT INCLINOMETER ON CAMERA
   MOUNT PIB
   MOUNT LCD MONITOR
   MOUNT GPS
   MOUNT CAMCDR

2. ELECTRICAL INTERCONNECT
   PIB POWER
   XYBION TO PIB (power/data)
   PIB TO LCD MON, GPS, CAMCDR (power)
   PIB TO GPS (video)
   GPS TO CAMCDR (video)
   CAMCDR TO LCD MON (video)
   GPS ANT

3. ELECTRICAL/MECHANICAL TEST
   MOUNT AND HARNESS CLEARANCES
   MOUNT AND HARNESS INTEGRITY
   XYBION IMAGING
   E-E TAPE RECORDING

4. STOWAGE/MISC PREP
   INSTALL VIDEO TAPES (2)
   REPLACE INCLINOMETER BATTERY
   INCLINOMETER CAL LEVEL
   MEASURE XYB OFFSET FROM AZ=90 (i.e., $\beta$)
   PS & MISC STOWAGE
   CANOPY CLEANING
SWUIS-A/VULCANOIDS FLIGHT EQUIPMENT STOWAGE LIST

Group A: SWUIS EQUIP
   Xybion Bogan Mount
   Xybion
   PIB + Cables (2)
   Digital Inclinometer
   LCD Mon + Cables (2)
   Lens
   Light Shield
   Camcorder + Cables
   GPS + Cables/Antenna

Group B: PS GEAR
   C/L
   Grey Tape (Secure)
   Lap Board (Tethered)
   Pens (Secure, No Caps)
   Red Flashlight (Tethered)

Group C: MISC
   Laptop
   Lapboard
   Light Curtain (Secure)
   Stowage Foam (Secure)
   Tool Kit (Tethered)
   Voice Recorder w/Tape (Secure)
   Video Tapes (2)
PS EJECT/EGRESS REMINDERS

EGRESS:

MAN SEAT OVERRIDE HANDLE (R)-- ACTUATE
LAP BELT-- DISCONNECT
SEAT KITS (L,R)-- DISCONNECT
HARNESS(L,R)-- DISCONNECT
G-SUIT HOSE-- PULL
JET CANOPY? (IF REQD: FACEMASK DN)
STAND UP (O2 WILL DISCONNECT)
EGRESS

EJECT:

CLEAR EQUIP
VISOR DOWN
POSITION BODY (THIGHS ON SEAT, HEAD BACK HARD)
SKINNY!
EJECT

ON CHUTE:

CK RISERS, CANOPY; ADJUST AS REQ'D
VISOR UP
MASK-- AWAY & THROW (DETACH REGULATOR!)
SEAT KIT-- DEPLOY
POSITION FEET
STEER INTO WIND TO SLOW (IF REQD)
IF OVER-WATER: PULL LIFE VEST INFLATION (2)
IF LOW: DEPLOY SEAT KIT!
SWUIS-A /PAYLOAD SPECIALIST SUIT & INGRESS CKS

SUIT PREP:

HELMET: COMM/O2 CKS, THEN KEEP WARM
SUIT STOWAGE
G-SUIT: WAIST, L/R LEG– SNAPS/ZIP († THIGH ZIPS)
HARNESS: ADJ FITTING; THEN SYNCH LATCHES (3)
IF OVER-WATER: LIFE PRESERVER FITTING, 1 LATCH

A/C INGRESS:

SEAT CKS: 2 PINS, EJECTION ARM– SAFE, O2– FULL
L LEG: BOOT & KNEE HARNESSING, NO TWISTS
R LEG: BOOT & KNEE HARNESSING, NO TWISTS
CK: STRAPS FLAT UNDER L,R LEGS
SEAT KIT: L,R D-RINGS ENGAGE
LAP BELT– FASTEN & TIGHTEN
CANOPY HARNESSSES (2): ENGAGE
G-SUIT: CONNECT
O2 REGULATOR: MOUNT, CONNECT O2
CONNECT COMM (CAMCDR, A/C)

VTR ON– BOTH
E–E TEST & FOCUS
CK: F-STOP FULL OPEN (CCW)
CK: STOWAGE SECURE

HELMET– ON
GLOVES– ON
SEAT– DN
VISOR– DN

SEAT PIN– REMOVE, STOW
CANOPY PIN– REMOVE, STOW
SWUIS-A F-18 SETUP & C/O PROC (p 1 of 2)

1. CABIN PREP
   INSTALL DI
   DI- ON
   RED FLASHLIGHT- ON
   INTERIOR LIGHTS- DIM

2. START RECORDER & TIME CODE
   VTR PWR- ON
   VTR TIME CODE- ENA
   VTR- RCD

3. SWUIS PREP, THEN TURN ON
   CK: FOCUS- INFTY
   CK: F/STOP- OPEN
   CK: PWR- OFF
   AUTO-AUTO-AUTO (3)
   MON SEL- HV
   INTGR- OFF
   IMG- OFF
   PWR- ON
   LCD- ON
   CAMCDR- ON
   GPS- ON
   CAMCDR- RCD
4. VERIFY E–E OPS
   
   VERIFY LCD IMG
   ADJUST GPS TEXT TO TOP OF LCD IMG
   CK/OPT: FOCUS
   
   CK: PIB VOLTAGES:
   HV MON: 4.08±0.3 V (~4.6 V DAYTIME)
   IG: 8.92±0.2 V
   BLA: 2.45±0.2 V
   CVG: 2.06±0.1 V
   MITIGATE CABIN & LCD LIGHT LEAKS
   CK & MITIGATE CANOPY ICING

5. SAFE SWUIS (OPTIONAL)
   GPS– OFF
   CAMCDR– OFF
   PIB PWR– OFF
   VTR– OFF
1. T-10 MIN: SYSTEM PREP
   VERIFY: S&L FLIGHT AT 49K FEET
   VERIFY: DI– ON
   XYBION EL– 12.5 DEG (initial)
   COCKPIT LIGHTS– OFF
   PIB MON SELECT– IG
   VERIFY: VTR RECORDING w/TIME CODE (RCD)
   VERIFY: CAMCDR RECORDING
   LCD MON: CK GPS TIME/POS DISPLAY
   CK: CANOPY ICE?
   CK: F/STOP– FULL OPEN (CCW)
   CK: FOCUS– OPTIMAL

2. T-2 MIN: SCIENCE RUN PREP
   PLT: A/C STROBE & POSITION LIGHTS– OFF
   PLT: LOG TIME, POS, HDG, ALT EVERY 2 MIN
   CK: VTR– RECORDING
   CK: VTR TIME CODE– ON
   CK: CAMCDR– RECORDING
3. T-0 MIN: TAKE VULCANOID DATA
   PLT: FLY HDG– 340 DEG TRUE
   XYBION EL– 12.5, 7.5, 2.5 DEG (1 MIN EACH)
   PLT: FLY HDG– 345 DEG TRUE
   XYBION EL– 2.5, 7.5, 12.5 DEG (1 MIN EACH)
   PLT: FLY HDG– 350 DEG TRUE
   XYBION EL– 12.5, 7.5, 2.5 DEG (1 MIN EACH)

4. SHUT DOWN
   PIB– AUTO-AUTO-AUTO (3)
   VTR– OFF
   CAMCDR– OFF
   GPS– OFF
   LCD MON– OFF
   PIB cb– OFF
   A/C & COCKPIT LIGHTS– ON
   DI– OFF
   XYBION– HORIZONTAL
   STOW DI
   STOW MISC EQUIPMENT
   FINAL LOG ENTRIES (VOICE, WRITTEN)
F-18 SWUIS-A VULCANOID RUN
SCIENCE FLIGHT PLAN

CLIMB TO 49K FEET:
CREW SYS RE-FAM (O2, COMM, SEAT)

S&L ON PRE-RUN HOLD:
COCKPIT LIGHTS– OFF
MITIGATE LIGHT LEAKS, ICE (IF REQD)
ACQUIRE RANDOM STAR FIELD
CK FOCUS, F/STOP
CK GAIN OPTIMIZATION
CK VOLTAGES
CK VTR– RECORDING
CK VTR TIME CODE– ON
CK CAMCDR– RECORDING

TAKE VULCANOID DATA:
ACQ HDG (340, 345, 350 DEG TRUE)
XYBION EL SWEEP (12.5, 7.5, 2.5 DEG)
RUN THROUGH T+15 MINUTES
A/C & COCKPIT LIGHTS– UP

SHUTDOWN/STOW
F-18 SWUIS-A RUN SCIENCE LOG

DATE & RUN NUMBER:
A/C & PILOT:
SWUIS OPERATOR:
FLT ALT:

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