



## DEPARTMENT OF THE NAVY

TRAINING SQUADRON THIRTY-ONE (VT-31)  
501 BATAAN STREET SUITE B  
CORPUS CHRISTI TX 78419-5249

VT31INST 6400.2D

OPS

22 FEB 2008

### TRAINING SQUADRON THIRTY-ONE INSTRUCTION 6400.2D

Subj: AIRNAV SOLOS

Ref: (a) N00019-00-D-0179 T-44 Minimum Equipment List  
(b) 7510-00-766-4269 In-Flight Guide  
(c) VT-31INST 3710.1S Standard Operating Procedures  
(d) CNATRAININST 1542.147B MPTS Master Curriculum Guide  
(e) COMTRAWINGFOURINST 3710.11H

Encl: (1) AIRNAV Solo CDO/SMA Brief  
(2) Commanding Officer's Restrictions  
(3) ORM Worksheet

1. Purpose. References (a) through (d) are background information to be used by the Command Duty Officer (CDO) to ensure adequate oversight of Student Military Aviators (SMA) during Air Navigation (AIRNAV) solo events. This instruction further amplifies the above references and provides specific guidance and additional requirements that shall be implemented by the CDO to ensure risks are minimized during student solo AIRNAV cross-country flights.

2. Cancellation. VT31INST 6400.2C

3. Discussion. This directive applies to all AIRNAV (AN) solos as identified on the daily flight schedule. The CDO is critical to ensuring that solo cross-country events are not launched without experienced oversight. As such, the CDO is charged to review all general and specific requirements delineated herein and apply ORM to decide whether to launch the event. The CDO has the authority to cancel the event if justified. Additionally, the CDO shall not delegate this responsibility and shall inform the Commanding Officer, Executive Officer and Operations Officer of the progress of all AN solo events.

4. Policy

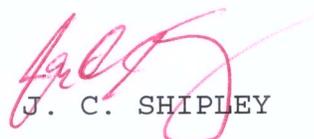
a. The following fields are authorized for AIRNAV solo events: Abilene Regional (KABI), Dyess AFB (KDYS), Rick Husband Amarillo INTL (KAMA), Austin-Bergstrom INTL (KAUS), Southeast Texas Regional (KBPT), Brownsville /South Padre Island INTL

VT31INST 6400.2D  
OPS  
22 FEB 2008

(KBRO), Easterwood Field (KCLL), Laughlin AFB (KDLF), El Paso INTL (KELP), Dallas Love Field (KDAL), Fort Worth Meacham INTL (KFTW), Fort Worth NAS JRB (KNFW), Fort Worth Alliance (KAFW), Valley INTL (KHRL), David Wayne Hooks Memorial (KDWH), Ellington Field (KEFD), Laredo INTL (KLRD), Lubbock Preston Smith INTL (KLBB), East Texas Regional (KGGG), McAllen Miller INTL (KMFE), Midland INTL (KMAF), San Angelo Regional (KSJT), Lackland AFB/Kelly Annex (KSKF), Randolph AFB (KRND), San Antonio INTL (KSAT), TSTC Waco (KCNW), Waco Regional (KACT), Sheppard AFB (KSPS), Alexandria INTL (KAEX), Baton Rouge Metropolitan (KBTR), Lafayette Regional (KLFT), Lake Charles Regional (KLCH), Chennault INTL (KCWF), Acadiana Regional (KARA), Monroe Regional (KMLU), New Orleans NAS JRB (KNBG), Barksdale AFB (KBAD), Shreveport Regional (KSHV), Northwest Arkansas Regional (KXNA), Altus AFB (KLTS), Ardmore Municipal (KADM), Clinton-Sherman (KCSM), Fort Smith Regional (KFSM), Little Rock AFB (KLRF), Enid Woodring Regional (KWDG), Adams Field (KLIT), Vance AFB (KEND), Lawton-Fort Sill Regional (KLAW), University of Oklahoma Westheimer Field (KOUN), Texarkana Regional (KTXK), Tinker AFB (KTIK), Will Rogers World (KOKC), Stillwater Regional (KSWO), Tulsa INTL (KTUL), Keesler AFB (KBIX), Columbus AFB (KCBM), Golden Triangle Regional (KGTR), Mid Delta Regional (KGLH), Greenwood-Leflore (KGWO), Gulfport-Biloxi INTL (KGPT), Roswell INTL Air Center (KROW), Hawkins Field (KHKS), Jackson-Evers INTL (KJAN), Key Field (KMEI), Meridian NAS (KNMM), Tupelo Regional (KTUP), Memphis INTL (KMEM), Millington Regional Jetport (KNQA), Tuscaloosa Regional (KTCL), Mobile Regional (KMOB), Mobile Downtown (KBFM), NAS Pensacola (KNPA), Pensacola Regional (KPNS). The outbound/inbound leg(s) shall not exceed 4.0 hours of flight time per student.

b. Multiple solo flights during the same day will not file for the same destination with concurring on-deck times without approval from the Commanding Officer.

c. Destination and enroute weather shall meet all Wing and Squadron restrictions. Review all pertinent directives.

  
J. C. SHIPLEY

Distribution: (VT31INST 5216.1V)  
List I

VT31INST 6400.2D  
OPS  
22 FEB 2008

AN SOLO CDO - SMA BRIEF

1. CDO SHALL read this instruction VERBATIM to solo students
2. CDO shall ensure instrument rating request forms and I4890 grade sheets have been submitted to Student Control prior to AN CDO brief. AN solo CPs shall be I4901 complete and meet all currency requirements in accordance with ref (e).
3. CDO shall verify SMA ATJ to ensure the student is I4890 complete. Nighttime is not authorized during AN solo event. Flight itinerary should be planned so as to ensure both students satisfy all requirements per ref (d).
4. CDO shall ensure SMAs clearly understand the 12-hour maximum crew day requirement. SMAs SHALL NOT EXCEED CREW DAY FOR ANY REASON. The CDO shall use the cross-country checklist to prepare for sortie.
5. CDO shall ensure the following are in SMAs' possession prior to departure:
  - a. Navigation bag with current charts/pubs
  - b. Fuel packet (save all fuel receipts)
  - c. Fuel logs
  - d. VT-31 DSN phone number 861-3350/2379 or toll free number of 1-877-693-6772
  - e. PPR number for destination and enroute stops
  - f. Cross-country checklist
  - g. Blank "A" sheet. CDO shall brief SMAs to leave a copy of "A" sheet with departure Base Ops on return leg of cross-country. International students CANNOT sign for the airplane but must still log a minimum of 2.7 and maximum of 3.3 hours.
  - h. Applicable NOTAMS
6. CDO shall review the aircraft ADB prior to AIRNAV departure and ensure aircraft is MEL compliant per ref (a).

Enclosure (1)

7. Enroute and destination field selection is subject to CDO approval. Fields must have government contract fuel available, an operating control tower and runway dimensions of at least 4900' X 100'. The CDO is responsible for ensuring authorized fields meet all criteria.
8. CDO shall review CO's restrictions (Encl 2). SMAs shall sign a copy of the form and return it to the CDO.
9. CDO shall verify that departure, enroute and destination weather including return legs are suitable for solo flying experience. SMAs will fly only the enclosed approved routes and deviate only under special circumstances (e. g., weather, emergency, etc.)
10. SMAs shall provide the CDO with a copy of the DD175 and DD175-1 for review and retention by the duty office. On the SMA's flight plan, the SMAs shall include the letter "Z" as a suffix to their callsign to identify them as a student solo.
11. SMAs ensure cross-country kit on board (plugs, covers, and tie downs).
12. SMAs shall report when complete with the "Engine Run-up" checklist and takeoff time to Montana base on VHF frequency 140.325 and phone in upon arrival at the enroute stop and prior to departure.
13. SMAs shall utilize callsign "NAVY 1 GXXX SOLO" throughout the flight. The term "solo" shall be included with callsign in all cases.
14. SMAs shall: 1) Complete entire NATOPS anti-ice check during engine run-up, 2) Update weather as often as feasible enroute, 3) Ensure severe weather is completely avoided, including Weather Warnings (WWs), Convective SIGMETS, forecast icing and moderate or greater turbulence. If in doubt about enroute weather, land as soon as practical at a suitable stop (MIL or civilian) and obtain an updated weather brief. Contact the CDO (not SDO) for guidance when needed and, if necessary, utilize NRP METRO via the following toll free phone number 1-800-531-9963.

15. At the destination, the SMAs shall: 1) Refuel immediately and complete a thorough postflight inspection, 2) Secure aircraft with chocks and tiedowns but do not install rudder lock, 3) Call the CDO (not SDO) ASAP with flight time, recall phone numbers, and expected pre-flight/departure time for return, and any aircraft malfunctions or problems. **Do not allow maintenance to be performed on aircraft without CDO approval.** 4) Save all receipts for lodging/food while aircraft is in down status for later reimbursement.

16. SMAs shall ensure "BOTH" is selected on UHF radio to receive GUARD transmissions.

17. Seat swaps between students shall not be accomplished in flight.

18. SMAs shall ensure all aircraft discrepancies are written up after the flight. Flight time should be annotated on the WINFLIR with Pilot-in-Command time divided evenly between students.

19. CDOs shall complete an AN solo grade sheet for the SMAs upon arrival back at Navy Corpus. Ensure CDO's name on WINFLIR is listed under "Instructor" so that the grade sheets will show up in their ATF file.

20. CDO shall verify date of checkride to ensure AN solo is within the required three days per ref (d).

21. CDO shall brief students on use of autopilot. Autopilot may be used, but is discouraged due to limited training available during the syllabus. If autopilot is used, reiterate to students the dangers accompanied with its usage (i.e., mode complacency, autopilot disengagement with no warning on CAP panel or from Master Caution light, etc.). Furthermore, coupled approaches are prohibited. CDO should cite AN solo flight violation incident and review CRM.

22. CDO shall verify that SMAs understand the flight schedule designates who is the Aircraft Commander for each leg of the solo flight. Students are not to deviate from the flight schedule. Therefore, whoever is assigned by the flight schedule

as the Aircraft Commander for the first leg, shall sign for the aircraft (signature appears on "A" sheet) and be seated in the left seat as the pilot at the controls. Conversely, during the second leg, the co-pilot for the first leg will sign for the aircraft, sit in the left seat, and conduct duties as the pilot at the controls as designated by the flight schedule. Note: Prior to departing on the return leg, a second "A" sheet must be signed over to the new Aircraft Commander. This requires that a blank "A" sheet be carried in the aircraft with the students. The second "A" sheet is available from Aircraft Issue prior to departing NGP. International students cannot sign for the aircraft.

23. At least 80% of the hours/x (2.4) for each solo event must be logged to count the event complete.

Commanding Officer's Restrictions: (CDO Brief - students sign)

1. Takeoff from NGP prior to official sunrise is prohibited. The event shall be completed during official daylight hours only.
2. Multiple approaches or touch and go's are prohibited. SMAs will execute one approach only to an approach flap full stop landing at each stop. Full or no-flap landings are not allowed.
3. SIMULATED EMERGENCY TRAINING is prohibited. This includes SSE approaches, use of malfunction control box, intentionally pulling circuit breakers, etc.
4. SMAs will not request visual approaches and shall request an instrument approach if the controller offers a visual.
5. Passengers are prohibited.
6. **SMAs shall not use GPS as a navigation source.**
7. Deviations from authorized fields are not permitted except in the event of an emergency.
8. SMAs will file IFR on all flights. VFR is not authorized during any portion of solo except in the event of an emergency requiring it.

\_\_\_\_\_  
CDO/DATE

\_\_\_\_\_  
SMA/DATE

\_\_\_\_\_  
SMA/DATE

\*\*Staple this sheet to the SMA's flight plan and weather and place on clipboard in Duty Office.

# VT-31 Operational Risk Management Guide 2008

This ORM guide is a tool for highlighting factors, which singly or in combination may be detrimental to safe mission accomplishment. It is not intended to replace common sense and sound judgment. Consideration should be given to modifying the flight profile if any factor or combination of factors would, in the opinion of the flight crew, lead to an unsafe condition. When applying the ORM process in a time critical manner, it is helpful to remember the five steps and the four principles of ORM.

### Four Principles

1. Accept risk when benefits outweigh the cost.
2. **Accept no unnecessary risks.**
3. Anticipate and manage risk by planning.
4. Make risk decisions at the right level.

### Five Steps (I AM IS)

1. Identify Hazards
2. Assess Hazards
3. Make Risk Decisions
4. Implement Controls
5. Supervise (watch for changes)

### Risk Matrix

**Risk Assessment Code**

- 1 = Critical
- 2 = Serious
- 3 = Moderate
- 4 = Minor
- 5 = Negligible

		Probability of Occurrence			
		A	B	C	D
SEVERITY	I	1	1	2	3
	II	1	2	3	4
	III	2	3	4	5
	IV	3	4	5	5

### Personal Risk Assessment

Use the following list as a guide to help determine if there are any external factors affecting each crewmember. If any one factor or combination of factors is affecting any crewmember, those factors should be discussed. A decision should be made by the crew to either continue the mission or cancel for ORM.

Are any of the following factors affecting you today?

	Y	N
<u>Work Stress</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Alcohol</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Eating Habits</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Medication</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Marital Issues</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Family Issues</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Fatigue</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Crew Rest Quality</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Currency</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>MPTS Average</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Any Misc Factors</u>	<input type="checkbox"/>	<input type="checkbox"/>

### Low Level / TAC Form

To reduce the risk of a bird strike, check BAM at <http://www.usahas.com/bam/>. Also review the following ORM factors to determine the level of risk associated with your flight.

	Y	N
BAM Severe	<input type="checkbox"/>	<input type="checkbox"/>
Route Conflicts	<input type="checkbox"/>	<input type="checkbox"/>
2 or 3 Ship	<input type="checkbox"/>	<input type="checkbox"/>
TFRs	<input type="checkbox"/>	<input type="checkbox"/>
Checkride Route	<input type="checkbox"/>	<input type="checkbox"/>

### Mission/External Risk Assessment

Review the following Operational Risk Factors. Determine if any will result in a negative impact on the mission. Identify which factors may be changed and apply controls to reduce the negative impact.

#### Scheduling Factors:

	Y	N
Showtime <0630 or >1730	<input type="checkbox"/>	<input type="checkbox"/>
Mission Duration >4.0 Hrs	<input type="checkbox"/>	<input type="checkbox"/>
Scheduled Duty Day >10 Hrs	<input type="checkbox"/>	<input type="checkbox"/>
>2 Students on the flight	<input type="checkbox"/>	<input type="checkbox"/>
Passengers on Board	<input type="checkbox"/>	<input type="checkbox"/>
Multiple Events Scheduled	<input type="checkbox"/>	<input type="checkbox"/>

#### Mission Factors:

C4101-4202/I47XX/F42XX	<input type="checkbox"/>	<input type="checkbox"/>
Extra Training Event	<input type="checkbox"/>	<input type="checkbox"/>
Checkride/IPC/FPC	<input type="checkbox"/>	<input type="checkbox"/>
IP/IP Event	<input type="checkbox"/>	<input type="checkbox"/>
IUT Event	<input type="checkbox"/>	<input type="checkbox"/>
Airspace Saturation	<input type="checkbox"/>	<input type="checkbox"/>

#### Weather Factors:

WX at or near Mins	<input type="checkbox"/>	<input type="checkbox"/>
Icing/Turbulence/Thunderstorms	<input type="checkbox"/>	<input type="checkbox"/>
Crosswind >10 kts	<input type="checkbox"/>	<input type="checkbox"/>
Wind Gusts >20 kts	<input type="checkbox"/>	<input type="checkbox"/>
Temp <32 <sup>0</sup> F or >98 <sup>0</sup> F	<input type="checkbox"/>	<input type="checkbox"/>

#### Aircraft Factors:

Partially mission capable	<input type="checkbox"/>	<input type="checkbox"/>
Late issue	<input type="checkbox"/>	<input type="checkbox"/>
Outstanding MAF's	<input type="checkbox"/>	<input type="checkbox"/>