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***Integrity - Service - Excellence***

# **Space Operations Support Squadron (SOSS)**



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Director, Operation LAUNCH PAD  
Space & Information Operations,  
Research

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# LAUNCH PAD

- 34 TRW Launch Pad Objectives
  - A. Graduate officers with a working knowledge of our space history, the space environment, and space capabilities.
  - B. Graduate leaders with an operational mindset for the use of space power and Information Operations (IO).
  - C. Graduate problem solvers who approach each challenge by asking if space power can provide a solution.
  - D. Produce graduates who are trained in the fundamentals of information operations.
  - E. Graduate future warriors who have experienced space capabilities infused in all aspects of USAFA military training.



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# ***Continue Space Ops Center (SOC) Success***

- What Worked this past Summer?
  - Partnership With Space Warfare Center (SWC) & NASA
  - SWC lesson plans, shaped to Cadet Audience
  - Dedicated Cadet Cadre
  - “Train the Trainer”



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# ***AFSPC/SWC & NASA***

## ***Commitment to Future AF Space Cadre***

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- This approach is very dependant upon others providing instruction & materials
  - Others develop presentations
  - Others brief or train USAFA or Reserve/Guard Instructors to brief material
  - Others provide “hands-on” equipment for demonstration





# *Ops Support Program Applications*

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- Cadet Cadre & System Engineer support other summer programs
  - Intelligence Prep of the Battlefield (IPB)
    - Pre-Deployment Site Survey, via overhead Imagery
  - Ongoing security/perimeter defense
  - SCUD warning via WOTS
    - Predicted Impact Points
  - Chem-Bio dispersion modeling
  - Terrestrial & Space Weather Updates
  - Satellite Transit (SATRAN) updates to GE Cadet/CCs
  - Satellite telephone voice/data communications
  - GPS/Hook-112 training
  - Denial of GPS
  - Combat scenario fly through & injects—rescue down airmen

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# *Space OSS Cadre Rough Schedule/Period*

Week 1	Week 2	Week 3
R Flt NASA	W Flt & DO/CH/NCOIC NASA	B Flt & CC NASA
W Flt SWC/Eqpt Trng	B Flt Ops Support	R Flt Ops Support
B Flt SWC/Eqpt Trng	R Flt SWC/Eqpt Trng	W Flt Ops Support

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# Space OSS Cadre, Travel/Training & Ops Support Weeks Routines

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	SUN	MON	TUE	WED	THU	FRI	SAT
NASA Week		Trvl Prep	AM Trvl PM Ellington Fld NASA Air Fleet Orientation	NASA	NASA	NASA	Return Trvl
TRNG Week		Space Ops School (SOPSC) Academics	Space Ops School (SOPSC) Academics	Ops Cntr. Equip. & S/W Trng	Lesson Plan Fam & Research	Ops Support GE CST BCT	Ops Support GE CST BCT
Ops Week	Ops Support GE CST BCT S-Ops AF	Ops Support GE CST BCT S-Ops AF	Ops Support GE CST BCT S-Ops AF	Ops Support GE CST BCT S-Ops AF	Ops Support GE CST BCT S-Ops AF	Ops Support GE CST BCT S-Ops AF	Ops Support GE CST BCT S-Ops AF

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# **Space Operations School (SOPSC)**

## **Academics**

	<b>Monday</b>	<b>Tuesday</b>
<b>700</b>	<b>Travel</b>	<b>Travel</b>
<b>730</b>	<b>Arrival/Set-up</b>	<b>Arrival/Set-up</b>
<b>800</b>	<b>Space Ops 1</b>	<b>AFSCN</b>
<b>830</b>	<b>(Enviro/Sats/Missions)</b>	<b>SSN (S)</b>
<b>900</b>	<b>Space Ops 2(a+b)</b>	<b>SATCOM</b>
<b>930</b>	<b>(Orbits/Law)</b>	<b>SATCOM</b>
<b>1000</b>	<b>Space Ops 3</b>	<b>Tactical Broadcast</b>
<b>1030</b>	<b>(Space Lift)</b>	<b>Networks (S)</b>
<b>1100</b>	<b>Physics 1</b>	<b>Space Threats and</b>
<b>1130</b>	<b>(RF Energy)</b>	<b>Vulnerabilities (S)</b>
<b>1300</b>	<b>Remote Sensing</b>	<b>Space Tactics</b>
<b>1330</b>	<b>(MSI/HSI)</b>	<b>Space Tactics</b>
<b>1400</b>	<b>Space-based WX</b>	<b>Information Ops</b>
<b>1430</b>	<b>Space-based WX</b>	<b>Information Ops</b>
<b>1500</b>	<b>GPS</b>	<b>Physics 2/3</b>
<b>1530</b>	<b>(System/Limitations)</b>	<b>(Propulsion/Lasers)</b>
<b>1600</b>	<b>GPS</b>	<b>Future Space Systems</b>
<b>1630</b>	<b>(Applications/Weapons)</b>	<b>Future Space Systems</b>

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# Ops Center Software Training

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- **SPACE-IN-A-BOX (TENCAP Space Applications Computer/Toolkit)**
  - **SMAT (Satellite and Missile Analysis Tool)**
  - **WOTS (Worldwide Origin Threat System)**
  - **STRED (Standard Tactical Receive Equipment Display)**
  - **SBMCS (Space Battle Management Core System)**
  - **FALCONVIEW**
  
- **SMAT**                      **Orbitology**
- **WOTS**                     **TBM launch warning & Impact predict**
- **STRED**                    **Recv/display Tac Feeds**
- **SBMCS**                   **Orbitology & GPS Nav Accuracies**
- **FALCONVIEW**           **3D display of layered data & fly through**

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***NEXT STEP(s)***

- ID the TRG Team:
  - Acquire Systems Engineer **NOW**
  - Designate Action Officer (COMPLETE)
  - Designate Space-Ops AF MTL (COMPLETE)
  - Begin NASA/SWC Coordination
  - Secure NASA POC (TDY, most of Summer, or dedicated location Rep/'03 grad?)
- Work with AFSPC for Future AFSPC Mission Brief
- ID Sources of Funding
  - DARPA, thru Chicken Hawk
  - AFSPC, Educating and Training Space Cadre
  - Ops AF Program Budget

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# QUESTIONS?

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