

~~SECRET~~

POINT PAPER

~~(U)~~ TECHNOLOGY FOR AUTONOMOUS OPERATIONAL SURVIVABILITY (TAOS)
ON-ORBIT OPERATIONS

- ~~(U)~~ Phillips Lab payloads and experiments manifested on AF Space Test Program (STP) spacecraft
 - ~~(U)~~ Launched from Vandenberg AFB 13 Mar 94 on first ARPA Taurus launch vehicle
 - ~~(U)~~ First flight of AF STP Space Test Experiments Platform (STEP) space vehicle
 - ~~(U)~~ One year mission, 290 x 300 Nmi near circular, 105 degree inclined orbit
 - ~~(U)~~ Mission Control [redacted] extensive US & AF SPACECOM operation center participation
- ~~(U)~~ TAOS payloads (selected by PL (then AFSTC), AF & US SPACECOM team late 1988/early 1989)
 - ~~(U)~~ Directly address AFSPACECOM satellite and space control requirements
 - ~~(U)~~ Autonomous space navigation systems (fully autonomous system and GPS receiver)
 - ~~(U)~~ Advanced data processing networks and computer systems
 - ~~(U)~~ [redacted]
 - ~~(S)~~ [redacted]
- ~~(U)~~ On-orbit operations divided into 5 major phases or categories
 - ~~(U)~~ Launch/early orbit operations; 2-3 week spacecraft/payload initialization and checkout (Cat A)
 - ~~(U)~~ Autonomous space navigation system test and evaluation continuous throughout mission using ground-derived and GPS based references (Cat B)
 - ~~(U)~~ [redacted] 25X1
 - ~~(U)~~ AFSPACECOM SSN and [redacted]
 - ~~(U)~~ [redacted]
 - ~~(S)~~ [redacted]
 - ~~(S)~~ [redacted]
 - ~~(S)~~ [redacted]
 - ~~(S)~~ [redacted]
 - ~~(S)~~ [redacted]
 - ~~(S)~~ [redacted]
- ~~(U)~~ Support to US and AF Space Command designed space control training exercises (Cat E)
 - ~~(S)~~ TAOS is an instrumented, highly maneuverable, dynamic "scoring" system
 - ~~(S)~~ "Single Sortie" exercises emphasize counterspace/protection disciplines ("Red Flag")
 - ~~(U)~~ Directly involve Cheyenne Mountain and Falcon AFB crews and assets
 - ~~(S)~~ Larger scale world-wide "Space Campaign" exercises later in mission to "tie together" lessons learned and skills acquired in "Single Sortie" exercises

[redacted] 22 Mar 94

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