

OSSA RELATED PROGRAMS FY - 89

Presented to the
Space Station Advisory Committee

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Space Station Freedom Utilization Planning Activities FY 89 Budget Impacts

IMPACT OF CONGRESSIONAL REDUCTION ON LIFE SCIENCES

- **Original Plan**
 - **Initiate Centrifuge in FY 1989**
 - **Plan for Extended Duration Crew Operations (EDCO) in FY 1989**
 - **Plan Space Biology Initiative (SBI) Space Station Freedom**
- **FY 1989 Budget was Significantly Cut by \$25M**
- **Consequences**
 - **Delays Development of Centrifuge**
 - **Defers EDCO Activities to FY 1990**
 - **Slows SBI Planning**
 - **Defers Initiation of SBI until 1991**

Space Station Freedom Utilization Planning Activities FY 89 Budget Impacts

Critical Activities Retained

- Attached Payload Accommodations Studies
 - Definition Studies *[Descoped]*
 - Small and Rapid Response Payloads
 - Contamination *[Descoped]*
 - Pointing, Viewing, and Zones of Occultation
 - Payload Categorization and Standards
- Attached Payload Announcement of Opportunity (AO) Activities
 - Experiment Flight Hardware Development
 - Experiment Hardware Concept Studies
- Earth Observation System (EOS) Activities
 - Level II Phase B Study Support
 - Payload Selection
- On-Orbit Servicing *[Descoped]*

Space Station Freedom Utilization Planning Activities FY 89 Budget Impacts

Critical Activities Retained [continued]

- Pressurized Volume Studies
 - Rapid Response Payloads
 - Joint Science Utilization
 - Environment and Dynamic Disturbances
 - Payload Categorization and Standards *[Descoped]*
- Information Systems Strategic Planning
- Operations Planning and Scheduling *[Descoped]*
- Science and Technology Centers Planning
 - Payload Integration and Operations Requirements
- Science Utilization Management (Field Centers) *[Descoped]*
- HQs contractor support for utilization planning, operations requirements, interface with the Office of Space Station, and special studies.

Space Station Freedom Utilization Planning Activities FY 89 Budget Impacts

Planned Activities/Studies Deferred from FY 89 Plan

- **Polar Platform Servicing**

- **Payloads Support**
 - **Multi-user equipment**
 - **Ground support equipment**

- **Expert System/Strategic Planning for Space Station Freedom Science Utilization**

- **Ground Processing Support - Simulators**

AUGUST 1988 BASELINE SPACELAB MANIFEST & FLIGHT PROJECTIONS

(ITS NUMBERS OUT OF SEQUENCE DUE TO MANIFEST OPTION CONSIDERATIONS, DATES ARE CORRECT)

CY 1 9 8 8	09/88 26 TDRS-C	11/88 27 DOD					CY 1 9 8 9	02/89 29 TDRS-D	04/89 30 MAGELLAN <i>28.8 degree 180 N.Miles next opy 05/91</i>	07/89 28 DOD	08/89 33 DOD	10/89 34 GALILEO <i>34.3 degree 180 N.Miles next opy 02/91</i>	11/89 32 SYNCOM IV-5 LDEF-1R <i>28.8 degree 180 N.Miles Rendezvous Launch vehicle</i>	12/89 36 DOD
	02/90 31 HST <i>28.8 degree High as possible</i>	03/90 35 ASTRO-1 BBXRT <i>28.8 degree 180 N.Miles NOVA observation</i>	04/90 37 GRO <i>28.8 degree High as possible</i>	05/90 38 DOD	06/90 40 SLS-1 <i>42.8 degree 170 N.Miles Gravity gradient</i>	07/90 39 CIRRIS (DOD) IBSS (DOD) TEAL RUBY (DOD)		09/90 41 STARLAB (DOD) <i>32.4 degree 170 N.Miles IMT 7 days</i>	10/90 42 ULYSSES <i>28.8 degree 180 N.Miles next opy 11/91</i>	11/90 43 TDRS-E	12/90 44 ATLAS-1 <i>37 degree 170 N.Miles</i>			
CY 1 9 9 1	01/91 45 TSS-1 GPS-1 <i>28.8 degree 180 N.Miles</i>	02/91 46 DOD	04/91 47 IML-1 <i>28.8 degree 180 N.Miles Gravity gradient</i>	05/91 48 WAMDI INMARSAT-1 GPS-2 EURECA-1L <i>28.8 degree 180 N.Miles Limb looking/above LAA/IR</i>	07/91 49 SL-J <i>44 degree 180 N.Miles gravity gradient Photo spectrometer</i>	08/91 50 SPACEHAB-1 INMARSAT-1 LAGEOS-2 <i>28.8 degree 180 N.Miles</i>	09/91 51 UARS <i>37 degree 180 N.Miles High as possible</i>	12/91 52 SL-D2 <i>44 degree 180 N.Miles gravity gradient Photo spectrometer</i>	12/91 53 ASTRO-2 EURECA-1R <i>28.8 degree 180 N.Miles</i>					
	02/92 54 SRL-1 <i>37 degree 180 N.Miles Ground targets w/1 determine altitude</i>	03/92 55 USML-1 <i>28.8 degree 180 N.Miles Gravity gradient Extended Duration Orbit (EDO) Kit</i>	04/92 56 SHEAL-2 ORFEUS/SPAS GEOSTAR-1 <i>28.8 degree 180 N.Miles Deploy/Retrieve</i>	05/92 57 ACTS USMP-1 <i>28.8 degree 180 N.Miles Post deployment gravity</i>	06/92 58 ATLAS-2 SATCOM <i>28.8 degree 180 N.Miles</i>	07/92 59 SLS-2 <i>42 degree 180 N.Miles Gravity gradient Extended Duration Orbit (EDO) Kit</i>	07/92 60 ISF-1	08/92 61 DOD	09/92 62 DOD	10/92 63 IML-2 GEOSTAR-2 <i>28.8 degree 180 N.Miles Gravity gradient Extended Duration Orbit (EDO) Kit</i>	10/92 64 SPACEHAB-2	11/92 65 TDRS-F	12/92 66 DOD	
CY 1 9 9 3	01/93 67 ATLAS-3 CRISTA/SPAS <i>28.8 degree 180 N.Miles Deploy/Retrieve Extended Duration Orbit (EDO) Kit</i>	02/93 68 ISF-2	03/93 69 SRL-2 <i>37 degree 180 N.Miles Ground targets w/1 determine altitude 18 months after SRL-1</i>	04/93 70 USMP-2 EURECA-2L <i>28.2 degree 180 N.Miles Post deployment gravity</i>	05/93 71 DOD	06/93 72 SFU-RETR. GEOSTAR-3	07/93 73 USML-2 <i>28.8 degree 180 N.Miles Gravity gradient Extended Duration Orbit (EDO) Kit</i>	08/93 74 SPACEHAB-3 AAFE	09/93 75 INMARSAT-2 GP-B1	10/93 76 USMP-3 EURECA-2R <i>28.8 degree 180 N.Miles Post retrieval star gravity</i>	<div style="border: 1px dashed black; padding: 5px;"> 11/93 77 SLS-3 [EDO] </div> <div style="border: 1px dashed black; padding: 5px; margin-top: 5px;"> 12/93 78 SPACEHAB-4 XTE </div> <div style="border: 1px dashed black; padding: 5px; margin-top: 5px;"> 12/93 79 ISF-3 </div>			
	NASA AUGUST 1988 BASELINE MANIFEST ORBITAL FLIGHT OPPORTUNITY PROJECTION													
CY 1 9 9 4	01/94 80 DOD	02/94 81 SL-D3 [EDO]	03/94 82 DOD	04/94 83 OMV-1	05/94 84 TDRS-G	06/94 85 IML-3 [EDO]	07/94 86 HST-REV.	08/94 87 SPACEHAB-5	09/94 88 ISF-4	9/94 89 ATLAS-4 [EDO]	10/94 90 DOD	11/94 91 SRL-3	12/94 92 SPACEHAB-6 TSS-2	
	01/95 93 USML-3 [EDO]	02/95 94 Sp.Sta.-1	03/95 95 EURECA-3L	04/95 96 Sp.Sta.-2	05/95 97 SLS-4 [EDO]	05/95 98 DOD	06/95 99 ISF-5	07/95 100 Sp.Sta.-3	08/95 101 IML-4 [EDO]	09/95 102 Sp.Sta.-4	09/95 103 EURECA-3R			