



Missile, Space and Range Pioneers

Past, Present and Future

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Today's Explorers Tomorrow's Pioneers

Twelfth Edition: April 15, 2010

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Astronauts Crippen & Crews Featured Speakers - Message from MSRP President

Astronauts to Speak About MOL Experiences



Bob Crippen with MOL Space Suit

The Spring Gathering of the Pioneers will honor men and women who worked on the Manned Orbiting Laboratory (MOL) Program. We are most fortunate to have former MOL Astronauts Bob Crippen and Al Crews lined up to speak to the Pioneers about their experiences on this program. Also, Hank Fisher and Frank Watkins will briefly speak on the MOL Program and its only test launch from Cape Canaveral AF Station on a Titan IIIC Launch Vehicle. So don't miss

this GREAT PROGRAM and a chance to socialize with other Pioneers. This Spring Gathering will include a sit down dinner and cash bar. You may purchase your tickets with the reservation form in this newsletter or online at <http://www.missileers.org>.

MSRP President's Message

I am sure you are aware of what an interesting and challenging time it has been and will be for our United States Space Program. What you may not be aware of is that an interesting and challenging time is also ahead for us in the MSRP organization.

Currently, I am fortunate to have a cadre of dedicated and experienced Officers and Directors associated with our organization. These individuals work diligently for the MSRP making our Board meetings productive as well as fun. A good example of their positive efforts is the program planned for our Spring Gathering honoring the pioneers of the MOL Program. With the material prepared and the guest speakers, I am confident it will be a great evening.

As I have mentioned, the Pioneers are facing some challenges. Most of the Board Members have served for several years. While having an experienced team is fortunate for me as President, it is a challenge for our organization. Like most organizations, we

lose some active members to burnout. The feelings of "been there, done that" and that



MOL Launch - Artist's Concept

Pioneers Background: The Missile, Range and Space Pioneers, Inc. were incorporated on 2 November 1966 "To provide an opportunity for the people who were involved in the early missile, range, and space activities at Cape Canaveral to socialize and renew old acquaintances". The faces may change but the social nature of the Pioneers remains the same. There are approximately 1,000 missile, range and space workers, former workers, and advocates on the rolls of the Pioneers.

MSRP President's Message, Continued

"it is time for someone new to take over" eventually causes people to step down. For the Pioneers this is even a greater concern due to the average age of our members and the loss of members due to health issues.

Because of this, I am asking each of you to consider helping us meet this challenge. Come out to a Board Meeting and see what it is like. Our Board Meetings are open to all our members. By attending one or more of our meetings it will give you an opportunity to see how we operate before our fall elections. As I described earlier, these meetings are interesting and enjoyable as we strive to carry out the core purpose of MSRP which is to meet socially and renew acquaintances. I can't tell you in a short letter all the interesting things I have learned from and about the members on our board, the Pioneers they have worked with, and the Programs they have worked on, but it has been one of the best experiences of my life.

So, yes there are challenges in the Space Program, but there are also challenges ahead with the Pioneers. While for the most part you can only sit and watch what is going on with the Space Program, you can make a positive difference with the Space Pioneers. The Pioneers have a long and proud heritage, and our task is to continue the preservation of that heritage for the men and women - the Pioneers of the Space Program.

I look forward to seeing each of you at our Spring Gathering on Friday, 21 May 2010, at the Hilton in Cocoa Beach, and I hope to see a few new faces at our Board Meetings over the next few months. The Pioneers Board Meetings are on the third Tuesday of each month at the Tides Club. If you have any questions or comments, please e-mail me at jlewis@cciflorida.com. Thanks and best wishes. Jim Lewis - MSRP President

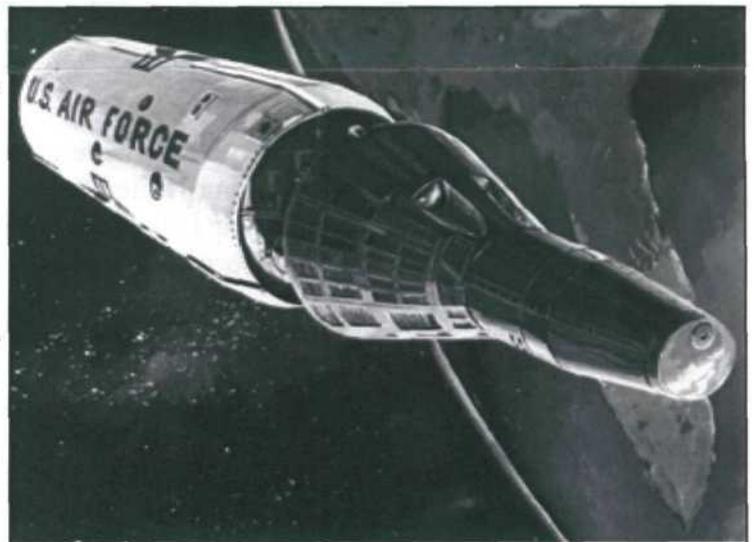
The USAF Manned Orbiting Laboratory (MOL) Program by Hank Fisher

It is hard to believe that it has been over 46 years since the Secretary of Defense announced the beginning of the Manned Orbiting Laboratory (MOL). As noted by Steven R. Storm in an Aerospace Corporation's Crosslink magazine in 2004, "During press conference on December 10, 1963, Secretary of Defense Robert McNamara announced both the death of the Dyna-Soar space plane and the birth of the Manned Orbiting Laboratory (MOL)." MOL was a farsighted Air Force program that explored the military potential for piloted space flights. Like the Dyna-Soar, it was cancelled before reaching its goal—but not before making some important contributions in the field of space-flight and space-station technologies.

Planners envisioned a pressurized laboratory module, approximately the size of a small house trailer, that would enable up to four Air Force crewmembers to operate in a "shirt-sleeve" environment. The laboratory would be attached to a modified Gemini capsule and boosted into near-Earth orbit by an upgraded Titan III. Astronauts would remain in the capsule until orbit and then move into the laboratory. The astronauts would conduct a variety of scientific experiments and assess the adaptability of humans in a long-duration space environment (up to four weeks in orbit). When their mission was complete, they would return to the capsule, which would separate from the laboratory and return to Earth. Launch facilities would be located at Vandenberg AFB, CA to permit launch into polar orbit for over flight of the Soviet Union. "

The summary above is a broad outline of the MOL Program as it evolved. In the years after the early 1960 studies, a formidable government and industry workforce was assembled to design, develop and operate what was to be one of the first orbiting manned space stations.

The DOD MOL Team. The MOL Program included The MOL Program Office in Los Angeles CA., the MOL astronauts selected in 1965-1967, as well as the assignment of 128 Air Force officers to NASA's Manned Spaceflight Center in Houston TX. Additionally, the MOL Program was supported by the following DOD organizations:



Artist Concept of MOL and Gemini B on Orbit

The USAF MOL Program, Continued

TITAN III SPO - Titan III Launch vehicles
DDMS - Recovery
National Range Division – Test support
SSD Deputy for Civil Engineering – MOL facility support

6595th ATW - Mission Launch Ops
6555th ATW - Test Launch Ops
Satellite Control Facility - Flight Ops

The Contractor MOL Team. A formidable industry team was assembled to design & develop the elements of the MOL program. This list of industry partners included:

Aerospace Corporation – GSE/Technical Direction
Douglas- Prime Contractor – Lab Vehicle & Systems Integration
Mc Donnell – Gemini B

MMC, AGC, UTC, ACED - Titan IIIC
Hamilton Std. - MOL MH-7 Training Suit

Orbital Elements. The on-orbit operational elements of the MOL included a modified Gemini capsule called Gemini B, a MOL adaptor (a connecting element between the Gemini and the Laboratory Module), and the Laboratory Module. These flight elements were to be launched operationally and put into orbit by a Titan IIIM vehicle launched from SLC-6 at Vandenberg AFB Ca. The Titan IIIM vehicle was a USAF Titan III booster with two primary booster motors that were increased to seven segments rather than the five segment boosters of the TITAN IIIC.

Operational Launch Complex. A new launch complex at Vandenberg AFB, CA designated Space Launch Complex (SLC) – 6 was to be the MOL Operational launch complex. Construction on the complex began on March 26, 1966.

Mission Control. The USAF Satellite Control Facility in Sunnyvale, CA was to be the Mission Control Center for the Manned Orbiting Laboratory.

Test Flight. In November 1966, a Gemini capsule attached to a modified Titan II propellant tank (to simulate the MOL) was launched from SLC-40 at the Eastern Test Range by a Titan IIIC. This test flight marked the only occasion that the Titan IIIC/MOL configuration was actually flown.

Summary. The MOL Program was moving toward its objectives over the timeframe from 1965 to 1969. However, cost and budget issues arose, and on 10 June 1969 the Department of Defense announced cancellation of the Manned Orbiting Laboratory Program.



Construction of SLC-6 at Vandenberg AFB, CA - 1966

Reservation Form

Sign In/Social 6:00 PM - Dinner 7:00 PM, Friday May 21st, The Hilton Cocoa Beach Oceanfront
_____ Reservations at \$35.00 each Check enclosed for \$ _____

Full Names of Attendees: _____

Telephone _____ Email _____

To pay online by "Pay Pal" go to <http://www.missileers.org>.

Clip and mail with check to: **Missile, Space & Range Pioneers, P.O. Box 254034
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Missile, Space and Range Pioneers

Spring Gathering - 2010

Honoring the Manned Orbiting Laboratory Program

Reservations Required! Invite your friends!

- Reservation form inside -

Friday, 21 May 2010, 6:00 P.M. Social 7:00 P.M. Dinner

Hilton Cocoa Beach Oceanfront

1550 North Atlantic Ave

Cocoa Beach, FL 32931

Address questions to: fwatkins@cfl.rr.com

or call Frank at (321) 242-6932

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