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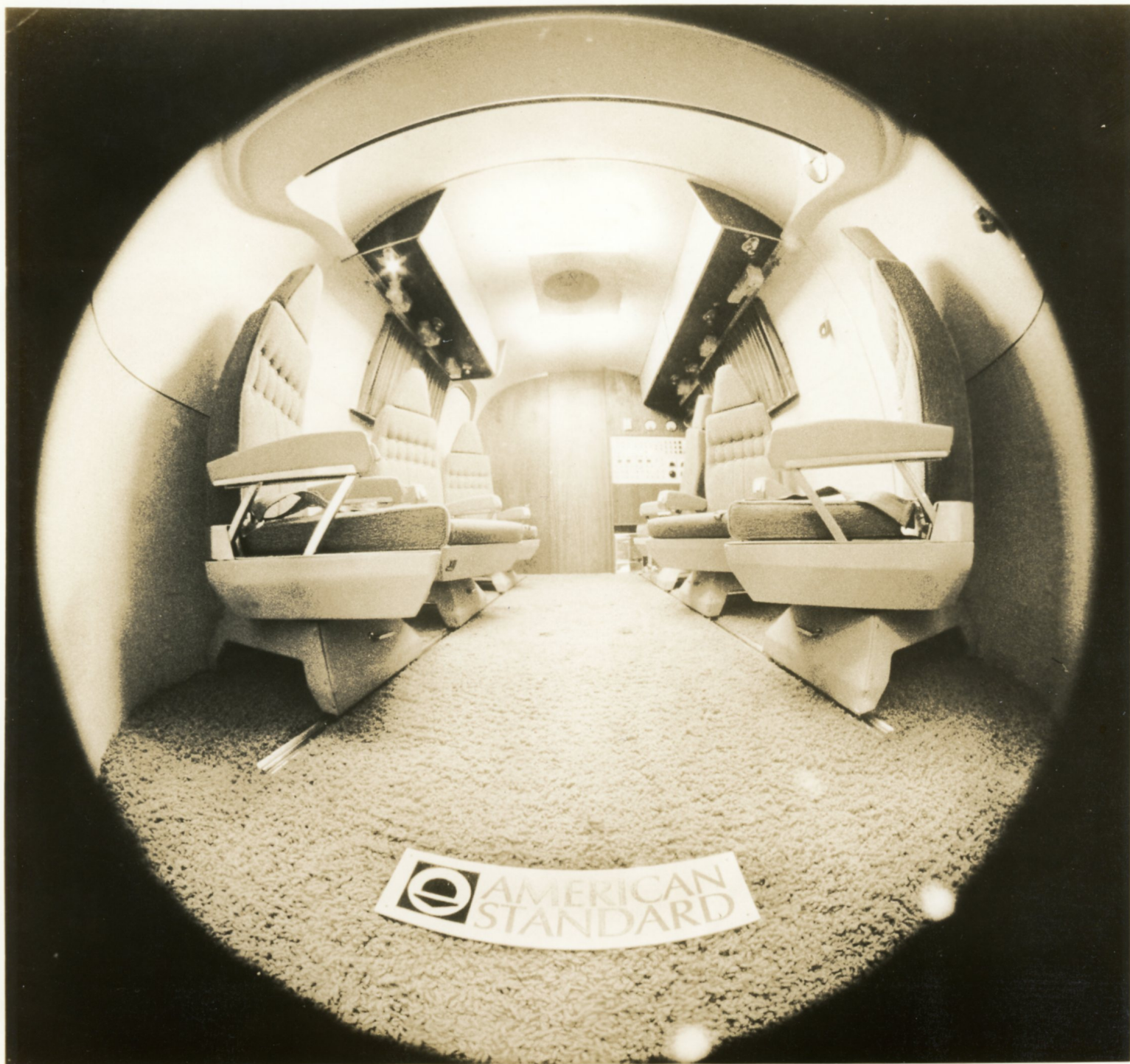
# **MOBILE QUARANTINE FACILITY**

## **APOLLO 11 FLIGHT**

See MQF S/N 1 on Display at MSC  
Members of the Technical Staff  
of MELPAR, a Division of AMERICAN STANDARD  
on call to Provide Detailed Information  
488-1217 or 488-1218

**Press Information**

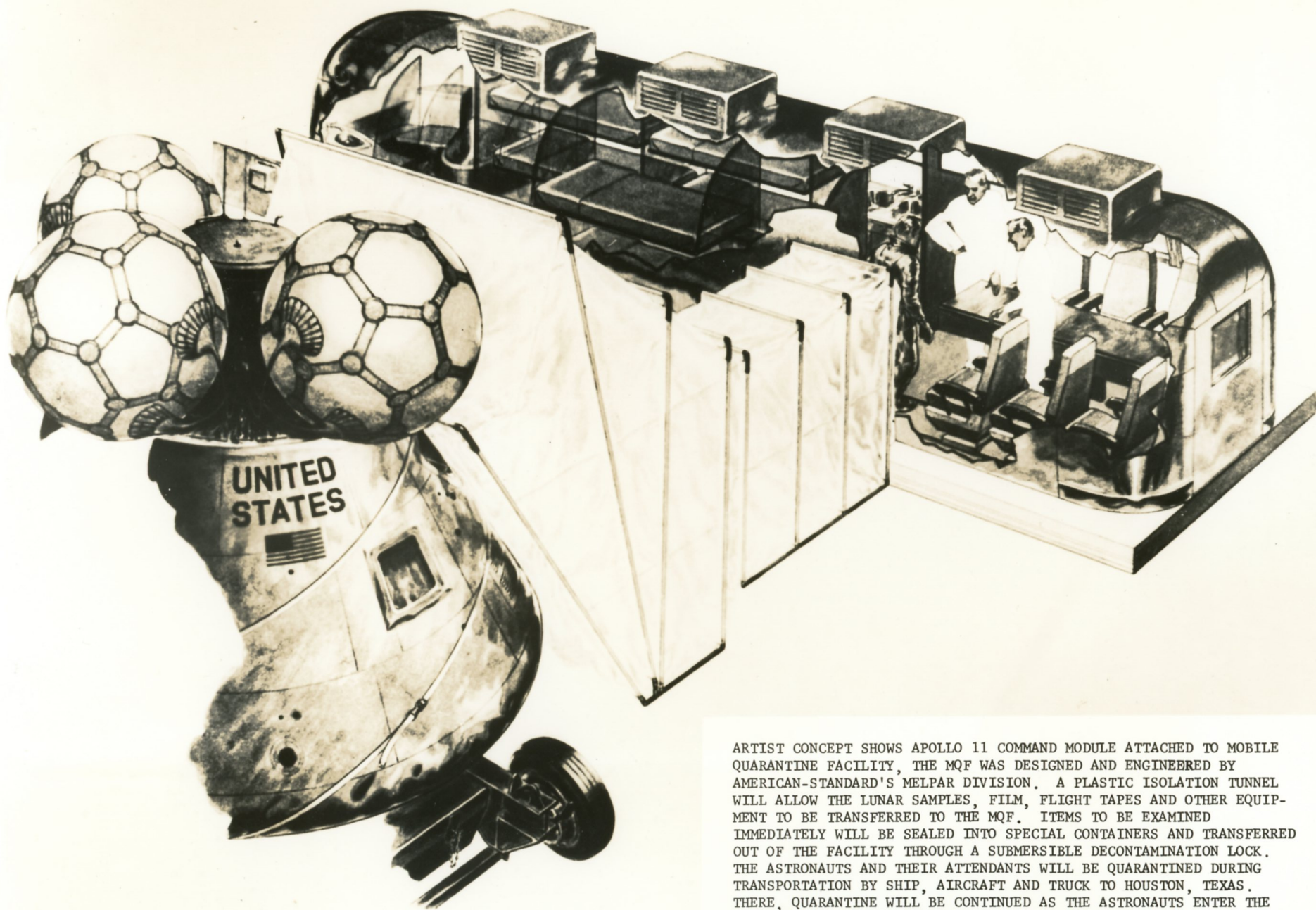




PHOTOGRAPH SHOWS LOUNGE AREA OF THE MOBILE QUARANTINE FACILITY (MQF) DESIGNED AND ENGINEERED BY AMERICAN STANDARD'S MELPAR DIVISION. THIS EQUIPMENT PROVIDES SELF-CONTAINED, COMFORTABLE LIVING ACCOMMODATIONS FOR SIX PERSONS DURING TRANSPORTATION BY SHIP, AIRCRAFT, AND TRUCK TO HOUSTON, TEXAS, AFTER RECOVERY.

THE FACILITY PROVIDES CONTINUED BIOLOGICAL ISOLATION BY MAINTAINING A NEGATIVE PRESSURE DIFFERENTIAL AND FILTRATION OF ALL EFFLUENT GASES.





ARTIST CONCEPT SHOWS APOLLO 11 COMMAND MODULE ATTACHED TO MOBILE QUARANTINE FACILITY, THE MQF WAS DESIGNED AND ENGINEERED BY AMERICAN-STANDARD'S MELPAR DIVISION. A PLASTIC ISOLATION TUNNEL WILL ALLOW THE LUNAR SAMPLES, FILM, FLIGHT TAPES AND OTHER EQUIPMENT TO BE TRANSFERRED TO THE MQF. ITEMS TO BE EXAMINED IMMEDIATELY WILL BE SEALED INTO SPECIAL CONTAINERS AND TRANSFERRED OUT OF THE FACILITY THROUGH A SUBMERSIBLE DECONTAMINATION LOCK. THE ASTRONAUTS AND THEIR ATTENDANTS WILL BE QUARANTINED DURING TRANSPORTATION BY SHIP, AIRCRAFT AND TRUCK TO HOUSTON, TEXAS. THERE, QUARANTINE WILL BE CONTINUED AS THE ASTRONAUTS ENTER THE LUNAR RECEIVING LABORATORY.

THE MOBILE QUARANTINE FACILITY PROVIDES SELF-CONTAINED LIVING ACCOMMODATIONS FOR SIX PERSONS, WHILE PROVIDING CONTINUOUS BIOLOGICAL ISOLATION BY MAINTAINING A NEGATIVE PRESSURE DIFFERENTIAL AND FILTRATION OF ALL EFFLUENT GASES.

AMERICAN-STANDARD MOBILE QUARANTINE UNIT IS 10-DAY HOME FOR  
RETURNING APOLLO 11 CREW

FALLS CHURCH, Va., July 10, 1969---In order to protect the earth against possible contamination from unknown organisms that our astronauts might bring back from the moon, the Apollo crew will be transported from the recovery ship to the Lunar Receiving Laboratory in the Mobile Quarantine Facility (MFQ), designed and engineered by Melpar, an American-Standard Company.

Biological isolation of men and material is a vital part of the NASA Back Contamination Mission for Project Apollo. It begins when the crew leaves the moon's surface and continues until they are released from quarantine at the Lunar Receiving Laboratory (LRL), Manned Spacecraft Center, Houston, Texas.

PORTABLE FACILITY PROTECTION AGAINST LUNAR ORGANISMS

The returning mission, for the first time, will bring back specimens collected on another celestial body. Because of the fear that undesirable organisms might be brought to earth in this manner,



elaborate preparations have been made to quarantine the returning astronauts, their moon specimens, and their spacecraft.

The MQF is equipped to house six people for a period of ten days. It is portable so that it can be carried by and interface with ships, aircraft, and trucks. The facility is composed of a lounge, a galley, and a sleep/bath area.

The MQF allows film, tapes, and lunar samples, sealed into decontaminated biological isolation bags, to be transferred for immediate shipment to Houston.

Providing "the home away from home" for the astronauts, the MQF filters the air and permits transfer of items through a submersible transfer lock. Two independent air conditioning and heating units maintain comfortable temperature within. Specially prepared and controlled meals will be passed into the facility where they will be heated in a microwave oven. Medical equipment to complete immediate post-landing crew examination and tests is provided.

#### MOON DUST AND DIRT ARE COLLECTED

The Back Contamination Mission procedures begin when the astronauts enter the Lunar Module after exploring the moon's surface. A positive airflow is established to prevent floating dirt particles from the Lunar Module from entering the Command Module. Certain equipment will have been left on the moon. The remainder, spacesuits and other items, will be vacuum brushed to remove dust and dirt and then placed in bags.

As the Lunar Module is finally jettisoned, the Command Module interior will be thoroughly cleaned to collect dust. The environmental control system will continue to filter the air within the Command

Module throughout the remainder of the flight to earth so that the cabin will be essentially free of lunar dust at splashdown.

The MQF will be stationed on the primary recovery ship. Astronauts will enter through an end door.

#### ASTRONAUTS WILL DON SPECIAL SUITS

The Astronauts will not leave the spacecraft until they have donned biological isolation garments. They will be taken by helicopter to the aircraft carrier where, accompanied by a doctor, they will enter the MQF through the rear door. Medical examinations will begin immediately.

After the crew leaves the Command Module, the hatch will be sealed and the outside surfaces decontaminated. After recovery, the module will be placed at the end of the transfer tunnel attached to the MQF and sealed.

Tapes, lunar samples, films, and other items will be carried to the MQF to be deposited in special containers, decontaminated, and taken to the outside. When all equipment has been removed, the CM hatch will be closed and decontaminated. The end of the isolation tunnel will be sealed from the inside, and drawn into the MQF.

When the MQF arrives at the Lunar Receiving Laboratory, the personnel will leave the MQF through the rear door and enter the LRL.

#### MQF EQUIPPED WITH COMPLETE LIFE SYSTEMS

The MQF is provided with a communications patch panel providing facilities for two-way communications, taping, shipboard motion picture audio, and an output for a shipboard public address system.

The MQF's lounge area contains six aircraft seats and a table



which can be used for medical examination, eating meals, and other purposes. The lounge area is separated from the rest of the MQF by a bulkhead with a sliding door.

Controls for the entire MQF are provided on a mode panel which allows the recovery engineer to monitor all life systems. A self-contained motor generator and two rotary converters will provide power for the facility.

The MQF contains a refrigerator, sink, microwave oven, and the decontamination transfer lock. The sleeping area is equipped with six bunks which have individual reading lights and storage space. The bathroom has a toilet, sink, hot-water heater, bathtub and shower, as well as an emergency exit.

#### ALARM SYSTEMS AND EMERGENCY DEVICES PROVIDED

Visual and audible signal alarm systems are provided. In the event of a power failure, the MQF automatically switches to an emergency system.

An emergency aircraft system is installed in the MQF which provides oxygen to the occupants should the host plane lose its pressurization. In the event of rapid decompression, the MQF is equipped with blowout panels which rupture to protect the MQF structure from buildup of internal pressure.

#### EQUIPMENT DESIGNED BY AMERICAN-STANDARD

The MQF was designed by Melpar to take full advantage of many of the standard construction features of the Airstream travel trailer. Melpar designed a heavy-duty frame, which interfaces directly with the 463-L cargo handling system. A 32-foot Airstream travel trailer

shell was then installed on this frame. With the electrical power system installed directly in front of the trailer shell, the overall length of the facility is 35 feet. The fabrication of the MQF units was accomplished by the subcontractor, Airstream, at its Jackson Center, Ohio, plant, where the items of Melpar design and fabrication were installed in the units. Melpar, an American-Standard Company, is located in Falls Church, Va. The contract effort for the fabrication of the MQF, transfer tunnels, and biological isolation containers was performed by the NASA Manned Spacecraft Center, Landing and Recovery Division, Houston, Texas.

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