E BATTALION

pollo 15 will allow viewers to 'explore' with spacen

ore the Moon along with the ollo 15 astronauts, thanks to new portable color TV camera d a complex communications okup between the Earth and he Moon

TS

The setup will permit viewers witness, for the first time, the astoff of the lunar module from e Moon to join the command odule for the return flight to

almost 67 hours. For another first, the arrangement will allow the National Aeronautics and Space Adminis-

tration ground controllers to manipulate the camera by remote control from the Mission Control Center back in Houston.

The communications links, involving numerous channels on several wavelengths, will hook

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Television audiences will ex- Earth Aug. 2, after a stay of together two individual astro- will be working a scientific sub- hours during lunar surface oper- nar Module Pilot James B. Irwin eling in the lunar rover the camnauts, a roving vehicle on the Moon, the lunar module stationary at its landing point, the command service module and three major Earth stations of NASA's Manned Space Flight Network.

rale.

TMA

cials report the summer cruise

of the "Texas Clipper" is marked

by good weather and high mo-

Coast Guard Adm. James D.

Craik (ret.), TMA superintendent,

has contacted the ship twice this

He said Thursday the 15,000-

week via ham radio.

At the same time the network

Texas Maritime Academy offi- and on schedule for its docking

year's itinerary.

satellite flying above the Moon. ations. The network will also In addition to TV and voice, provide normal tracking and data entific work as they explore the the hookups must provide circuits for command of television and other electronics, biomedical data and life support systems, giving continuous coverage for many

summer cruise

yesterday at Rotterdam, first of

four European ports on this

said the ship encountered a small

storm on its first night at sea

after leaving Mayport, Fla.,

where the students received fire-

While weather is ideal, Craik

collection functions of all vehicles.

The chief advantage of this system is to free Apollo 15 Commander David R. Scott and Lu-

graduates enrolled in Texas

A&M's "Summer School at Sea."

executive officer and the Clip-

per's commanding officer, had

high praise for the "Summer

"This is one of the finest

groups of 'prep cadets' we've ever

had," Philbrick told the admiral

School at Sea" participants.

Capt. Alfred Philbrick, TMA

for extensive operations and sci-Moon's Hadley-Apennine region. clearer, sharper TV pictures than on previous Apollo flights.

While the astronauts are trav-

The regular TMA cadets are

Other ports of call include Co-

land; Cadiz, Spain; Las Palmas,

Canary Islands, and Charlotte

Amalie, St. Thomas, Virgin Is-

operating the ship under the su-

pervision of the academy's li-

'going well'

lands.

censed officers.

era will be turned off, but when they stop technicians at MSC-Houston will turn it on and NASA engineers say they expect adjust for tilting, panning, focus, power and zoom to obtain best results on the ground. (The camera has automatic light adjustments.) This capability was not possible when the astronauts alone could operate the camera. The camera can be mounted m

a fixed position or handheld for best viewing results.

The astronauts will leave the TV camera on the rover when they discard the vehicle and take off for Earth. Positioned several hundred feet away from the penhagen, Denmark; Cork, Ire- lunar module, it will be commanded on to cover the liftoff. The camera will operate on the rover's remaining battery power.

After lunar liftoff, the rover TV camera will continue to be operated, with the remaining power supply. Plans call for at least one daily use of the camera for the first week after the astronauts' departure.

One event to be viewed is an eclipse of the Sun by the Earth, on the morning of Aug. 6, just prior to astronaut splashdown in the Pacific.

On previous Apollo missions, the lunar TV cameras drew their power from the lunar module and returned signals to Earth via the lunar module's radio system. The camera was connected by wire to the lunar module and consequently could not be moved more than 100 feet from the

As in previous missions, the TV signal will come to Earth through the prime MSFN stations at Goldstone, Calif.; Madrid; and Canberra, Australia. Each station provides coverage of the Moon by use of two 85foot (26-meter) parabolic antennas. For best TV coverage, the flight will use a 210-foot (64-meter) tracking antenna of NASA's Deep Space Network at Goldstone, and a radioastronomy antenna of the same size at

The normal tracking and data collection phases of the flight will be carried out by the Network. In addition, the Network will track a scientific sub-satellite to be launched from the command module into lunar orbit.

For the special television coverage NASA has provided a complex hookup connecting the astronauts and the TV camera directly to Earth. Because of the rough terrain in the Hadley-Apennine region of the Moon, communication from the lunar rover cannot be transmitted via the lunar module, even though it is only a few miles away.

Communication from the astronauts will always be routed via the rover or the lunar module. The command module, piloted by Alfred M. Worden, will have the normal hookup as in previous

