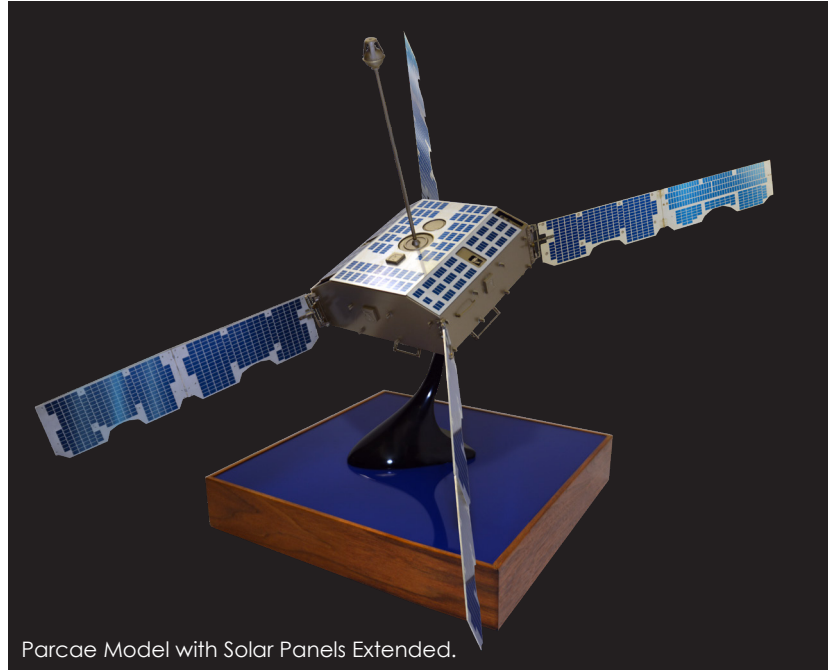
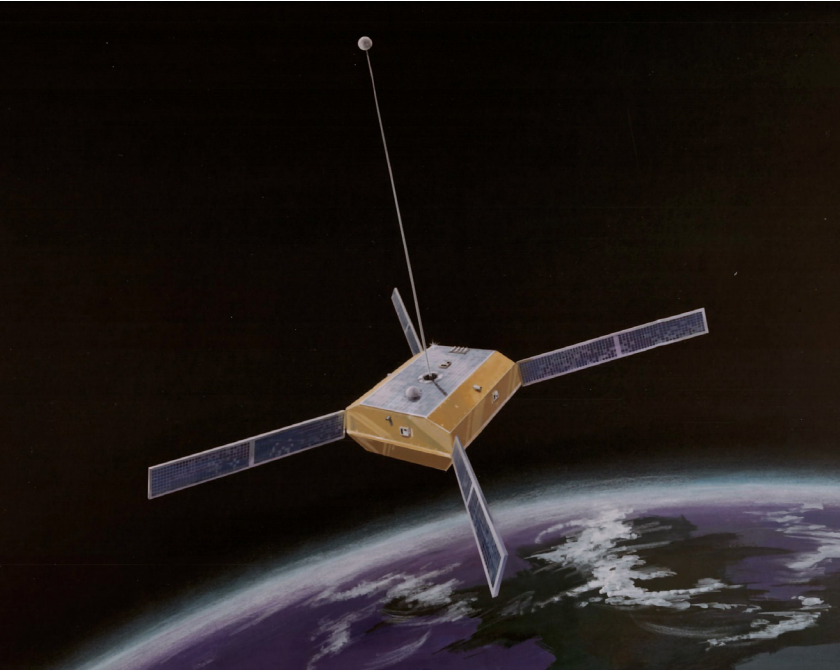


# PARCAE

A M E R I C A ' S E A R S I N S P A C E



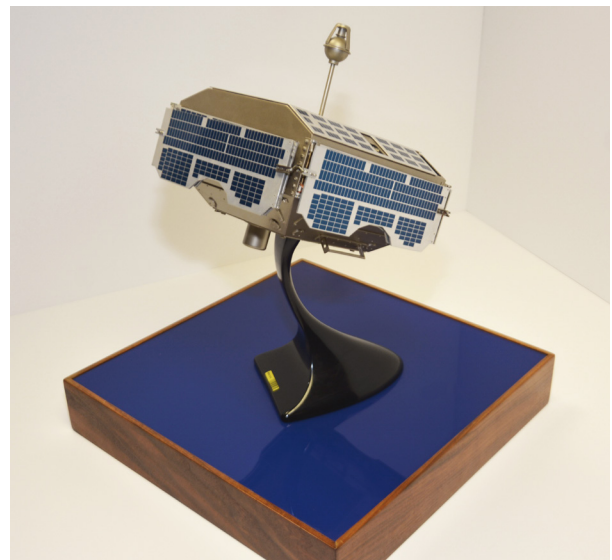
Parcae Model with Solar Panels Extended.

## ORIGINS OF PARCAE

After the success of the GRAB and Poppy signals collection programs, and with increasing concerns about the Soviet Navy, the Naval Research Laboratory as part of the NRO's Program C, developed the next system that would collect the needed information on the Soviet Union's naval fleet. That system, Parcae, was the programmatic follow-on to GRAB and Poppy. Later on, the NRO developed the next generation of Parcae, referred to as Improved Parcae, which added the capability to collect against and recognize selected foreign communications systems.

Parcae and Improved Parcae were Low Earth Orbit electronic intelligence collection systems that downlinked the collected data to ground processing facilities located at selected locations around the world. Once received, the data was provided to the National Security Agency for processing and reporting to U.S. policymakers.

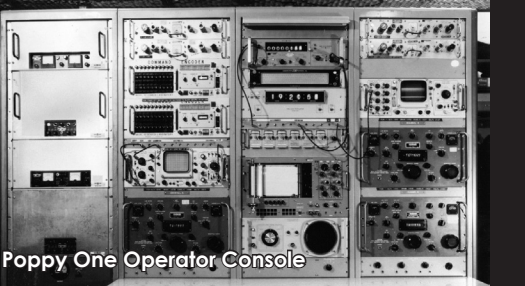
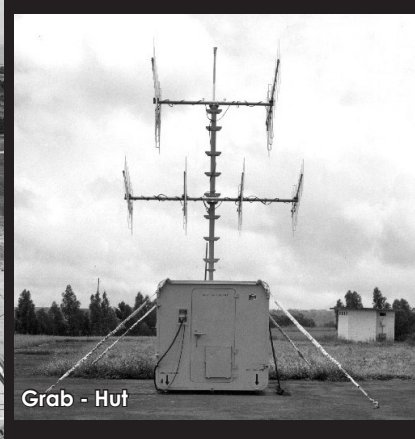
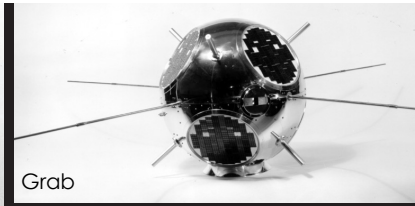
Launched from 1976 to 1996, under mission numbers 7108 to 7120, Parcae and Improved Parcae were successfully operated by the NRO until 2008. In July 2023, the NRO Director declassified the fact of the existence of the Parcae and Improved Parcae satellites in addition to limited details about their purpose.



Right: Parcae Model with Solar Panels Stowed.

# GRAB & POPPY

A M E R I C A ' S E A R S I N S P A C E



## ORIGINS OF SIGNALS INTELLIGENCE

The Galactic Radiation and Background (Grab) electronic signals intelligence satellite was the world's first successful reconnaissance satellite. The U.S. Navy's Naval Research Laboratory (NRL) launched the initial of two successful Grab missions on 22 June 1960. For the first time, the U.S. was able to intercept and analyze signals from Soviet air defenses deep into Soviet territory.

All preceding U.S. signals collection platforms, which were either airborne or ground-based, only could penetrate 200 miles inside Soviet territory. Grab's intelligence provided evidence that the Soviets could detect and defend itself against a U.S. nuclear attack. Earlier National Intelligence Estimates (NIEs) concluded that the Soviets did not have these capabilities.

The Poppy reconnaissance satellite was Grab's successor. In 1962 the NRL, by then part of NRO's Program C, developed this larger and more advanced satellite. The NRL launched the first Poppy satellite on 13 December of 1962, and the Poppy program completed seven missions. The NRL launched the last Poppy mission on 14 December 1971.

Grab and Poppy missions supported a wide range of intelligence applications that included providing cues to the location of Soviet radar sites, conducting ocean surveillance, and working with photoreconnaissance satellites to develop a complete picture of the Soviet Military threat. These two early spaceborne reconnaissance satellites provided invaluable intelligence to U.S. policymakers and laid the foundation for the NRO's future signals intelligence satellite reconnaissance capabilities.

The NRO is the leader in developing, acquiring, launching, and operating the nation's intelligence, surveillance, and reconnaissance satellites to secure and expand America's advantage in space. We are building a diversified and resilient architecture of spacecraft and ground systems designed to meet the challenges of a changing space environment by accelerating innovation and leveraging strategic partnerships, backed by a diverse and highly skilled workforce. At the NRO, we See It, Hear It, Sense It so our nation's warfighters and policymakers have decision advantage amid increasing global competition.