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ESRO Centres Chosen The Netherlands has won the major
national prize in the allocation of planned European Space Research
Organization facilities, with the decision to locate the organiza-
i ion's European Space Technology Centre (ESTeC) in Delft.
The ESRO data centre (ESDaC) will be at Darmstadt, West Ger-
many, and the organization's headquarters will be set up in Paris. As already reported, a northern sounding-rocket range is to be established at Kiruna, Sweden.

More Thors for USAF Total number of Thor IRBMs and space boosters purchased by the USAF is 290, following the sale of 18 Thor space boosters announced by Douglas on April 3. This order, it was stated, would extend the production of Thors at Santa Monica "well into 1963."

Second US List for UN A second list of "objects launched into sustained orbit or beyond" by the United States was transmitted to the United Nations on April 3. Accompanying the list was a separate note giving details of the orbital flight by John Glenn on February 20.

RUSSIA'S UN LIST

Reproduced below is the table of Soviet spacecraft transmitted to the United Nations committee on the peaceful uses of outer space by Soviet acting psrmanent representative Platon D. Morozov on March 24. As briefly reported last week, the list covers 16 announced launchings, beginning with Sputnik 1, and confines itself to the main spacecraft, omitting the rocket-stage fragments and other associated objects which were included in the US list of March 5.

A number of details are omitted from the Soviet list. Sputnik 8, the Earth satellite from which the Venus probe was launched, is not included; and trajectory data for the lunar and Venus probes are not given. Items contained in the US list (which was restricted to objects in orbit at the time the list was compiled) and omitted from the Russian list include launch vehicles and nodal periods.

Two McDonnell Aircraft engineers, sitting-in as astronauts, give scale
to the mock-up of the Gemini spacecraft which will be used in the follow-
on programme to Project Mercury. A Mercury capsule is on the right

In his accompanying letter Mr Morozov stated; "In the opinion
of the Soviet Union, the information furnished to the United

Nations for registration will be of real value if the countries con-cerned will register now and will continue to register all the arti-ficial satellites of the Earth placed in orbit and other objects launched into outer space. It is of great importance that, in addition to other data, the particulars furnished by States should include information on the purpose of the launching."

SOVIE T EART H SATELLITE S AN D SPACECRAFT, 1957-42

Shor t
nam e

Internationa l
designatio n

N o Name Purpos e Dat e Perige e Apoge e (km) (km)

Inclina -
tio n
(deg)

Sputnik I

Sputnik 2

Sputnik 3

Lunik I

Lunik 2

Lunik 3

Sputnik 4
(Spaceship I)

Sputnik 5
(Spaceship 2)
Sputnik 6
(Spaceship 3)
Sputnik 7
Venus probe

Sputnik 9
(Spaceship 4)

Sputnik 10
(Spaceship 5)

Sputnik 11
(Vostok 1)
Sputnik 12
(Vostok 2)

Sputnik 13
(Cosmos 1)

1957 Alpha

1957 Beta

1958 Delta

1959Theta

I960 Epsilon

I960 Lambda

1960 Rho

1961 Beta
1961 Gamma

1961 Theta

1961 lota

1961 M u

196! Tau

1962 Theta

I

2

3

4

5

6

7

8

9

10
I!

12

13

14

15

16

first satellite

second satellite

thir d satellite

first space rocket

second space
rocket

thir d space
rocket

first spaceship

second spaceship

thir d spaceship

heavy satellite
space rocket
towards Venus

fourth spaceship

fifth spaceship

spaceship satellite
Vostok (The East)
spaceship satellite
Vostok 2
(The East 2)

satellite

launching of first-ever artificial satellite of the Earth; physical study of the atmosphere
study of the physical processes and conditions of life in outer space
research into the upper atmosphere and in outer space
attainment of escape velocity and exploration of interplanetary space
impacting on the Moon; delivery of a pennant to the surface of the Moon, and research during flight to the Moon
placing an interplanetary station in orbi t around the Moon; photographing the surface on the far side of the Moon; exploring outer space.
development and checking of the main systems of the spaceship satellite which ensure its safe flight and control in flight, return t o Earth and conditions needed for a man in flight
development of systems ensuring man's life functions and safety in flight and his return t o Earth
medical and biological research under space flight conditions
development of heavier spacecraft
checking of methods of setting space objects on an interplanetary course; checking of extra-long-range communications wit h and control of a space station; more accurate calculation of the dimen-sions of the solar system; a number of physical investigations in space
development of the design of the spaceship satellite and of the systems on board which ensure neces-sary conditions for man's flight.
development of the design of the spaceship satellite and of the systems on board designed t o ensure man's life functions during flight in outer space and return t o Earth
placing in orbi t around the Earth of the first-ever spaceship satellite wit h a man on board
investigation of the effects on the human organism of a prolonged flight in orbi t and subsequent return t o the surface of the Earth; investigation of man's ability t o wor k during a prolongedjperiod of weightlessness
investigation of the upper atmosphere and outer space; development of elements in the design of spacecraft

4 Oct 57

3 Nov 57

15 May 58

2 Jan 59

12 Sep 59

4 Oc t 59

15 May 60

19 Aug 60

I Dec 60

4 Feb 61
12 Feb 61

9 Mar 61

25 Mar 61

12 Apl 61

6 Aug 61

16 Mar 62

227

225

226

312

306

187.3

223.5

183.5

178.1

181

178

217

947

1,671

1,881

369

339

265

327.6

248.8

247

327

257

980

65.1

65.3

65.2

65

64.95

65

64.95

64.93

64.9

64.95

64.93

49

Perigee, apogee and inclination described as "main characteristics of orbi t according t o corrected data.' First tw o columns added by"Flight International."