

PROVIDING WORLDWIDE CUSTOMERS WITH FULL RANGE OF SPACE TO GROUND SOLUTIONS

CHINA ACADEMY OF SPACE TECHNOLOGY



China Academy of Space Technology

ORGANIZATION

CAST: Key Member of CASC

CALT

AASPT AALPT SCAIC CAAET...

CGWIC : Commercial Trading Company

ALIT : Defense Trading Company

CSCC: China's Sole Satellite Operator



**27000
Employees**

Space: *15000*

Average Age: *36*

**6.37
Billion USD
Revenue
In 2018**

CAST INDUSTRIAL FOOTPRINT

15 Subsidiaries in 7 Cities



BEIJING
19513 people

TIANJIN
1257 people

YANTAI
1403 people

INNER MONGOLIA
583 people

LANZHOU
1809 people

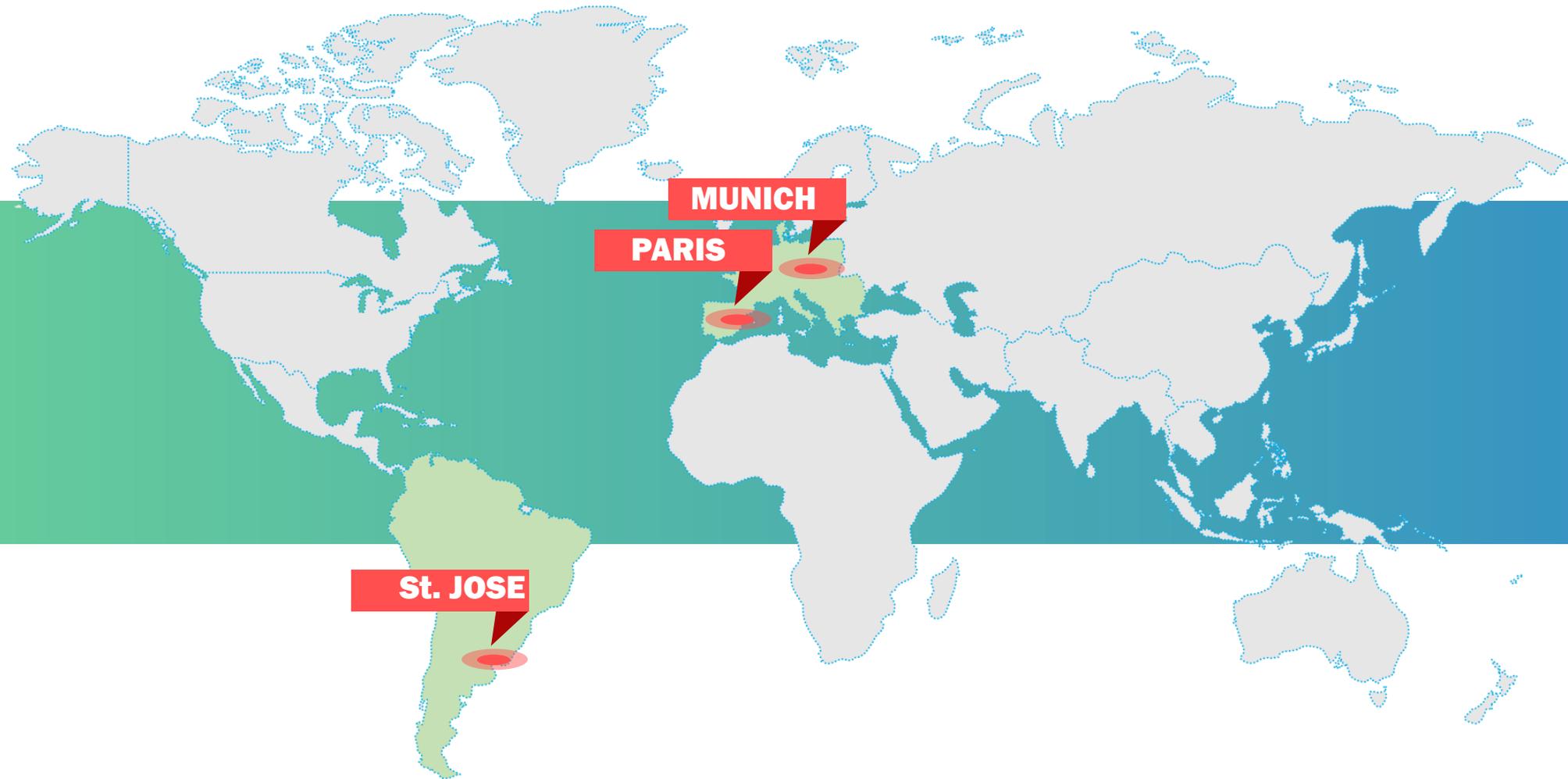
XI'AN
2773 people

SHENZHEN
145 people



CAST INDUSTRIAL FOOTPRINT

3 Representative Offices Abroad



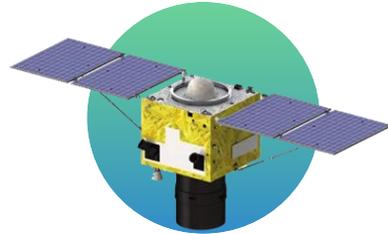
CORE BUSINESS

SPACE

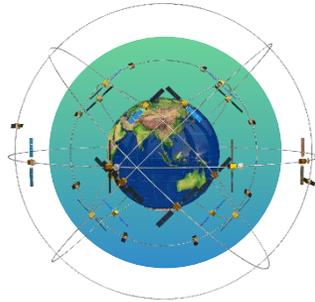
Telecommunications



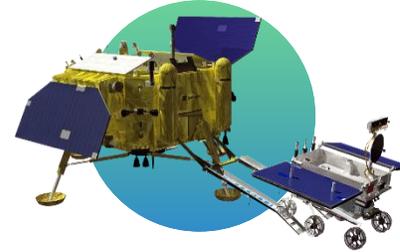
Remote Sensing



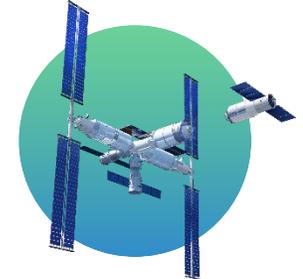
Navigation



Science Exploration



Manned Spaceflight



SPIN-OFF

Satellites Application



Intelligent Equipment



Energy-Saving & Environmental Protection



Space Biotechnology



SPACE SEGMENTS

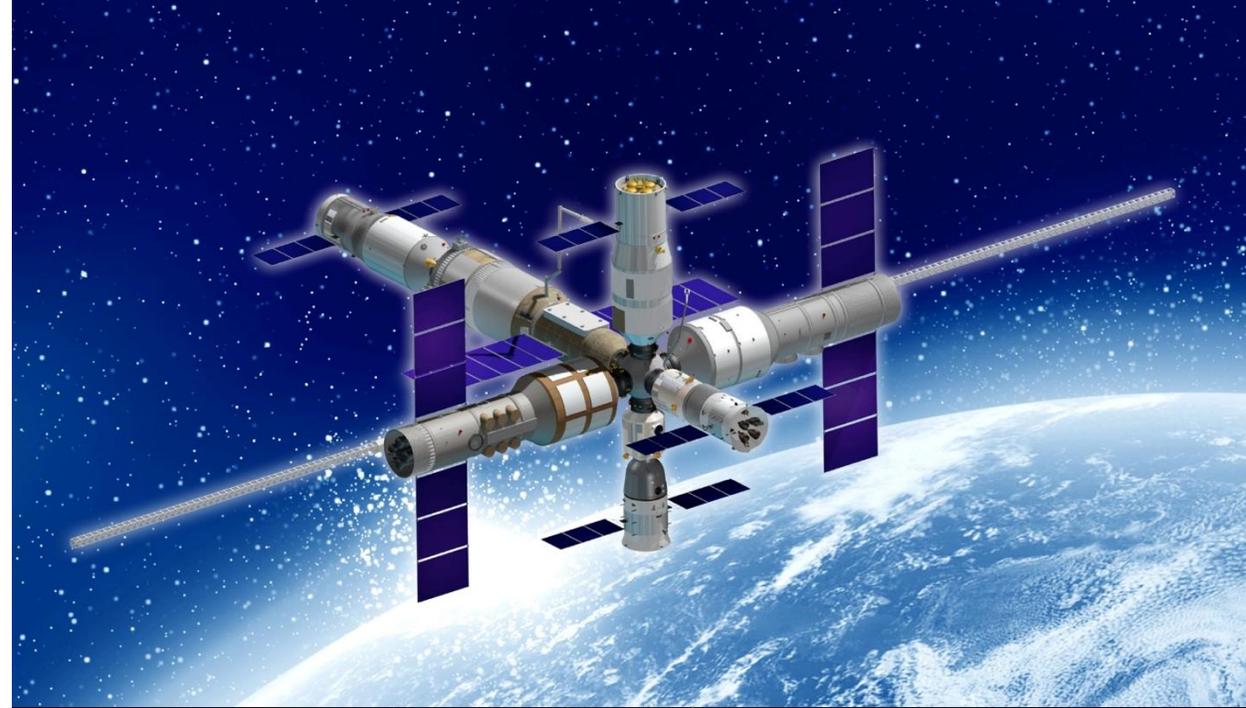
Providing worldwide customers with full range of space to ground solutions

WE DESIGN, BUILD AND DELIVER END-TO-END SPACE SYSTEMS:

265 spacecrafts delivered

167 spacecrafts in orbit

Satellite	Delivered	In Orbit
Remote Sensing	128	86
Telecommunications	45	28
Navigation	37	30



TELECOMMUNICATIONS

Prime contractor for over 40 telecommunications satellites

TURNKEY SOLUTIONS

- Consultation
- Orbit Frequency Coordination Support
- System Design & Integration
- Satellite Manufacture
- Launch and In-orbit Operation Support
- KHTT

MATURE DFH PLATFORM SERIES FOR TELECOMMUNICATION, BROADCAST AND CUSTOMIZED MISSIONS

RELIABLE AND CUSTOMIZED PAYLOADS



REMOTE SENSING

Core Player for over 100 Remote Sensing Satellites

- **Space To Ground Turnkey Solutions**
- **Versatile LEO/SSO/GEO Satellites And Constellations**
- **High Performance And Innovative Bus & Payloads**
- **Reliable Ground Application System**
- **Commercial EO Satellite Operation**



NAVIGATION

Prime Constructor of China's Beidou Navigation Satellite System

THE 1ST GENERATION

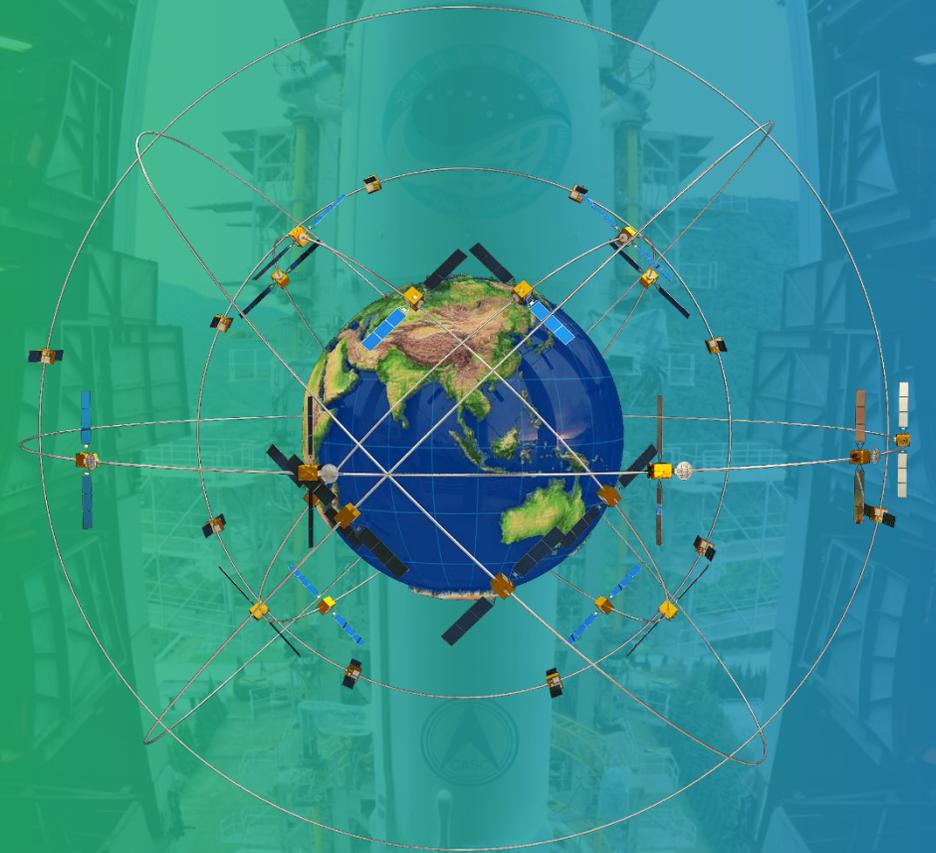
4 satellites

THE 2ND GENERATION

16 satellites offers regional services for Asia-Pacific area by 2012

THE 3rd GENERATION

35 satellites will offer global coverage by 2020



NAVIGATION

Beidou Navigation Satellite Applications



Emergency Command & Control

Intelligent Transportation

Precise Timing

Disaster Relief

National Security

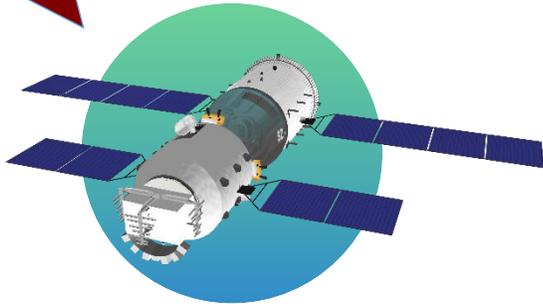
HUMAN SPACEFLIGHT

Founder of China's Manned Space Program

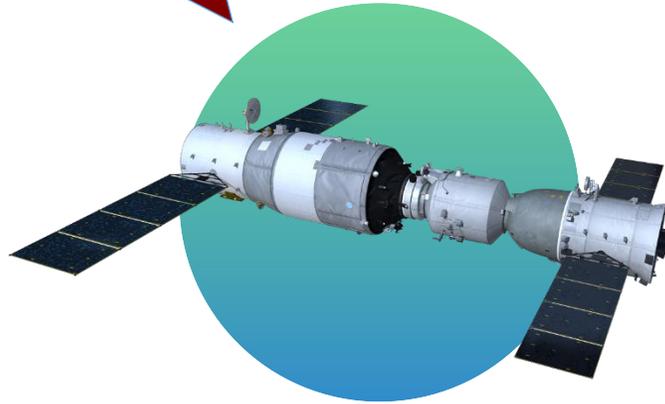
Successfully launched 11 Shenzhou spaceships , 1 Tianzhou cargo spaceship and 2 Tiangong space labs, will build China's first space station

China's Manned Space Program is implemented by three steps.

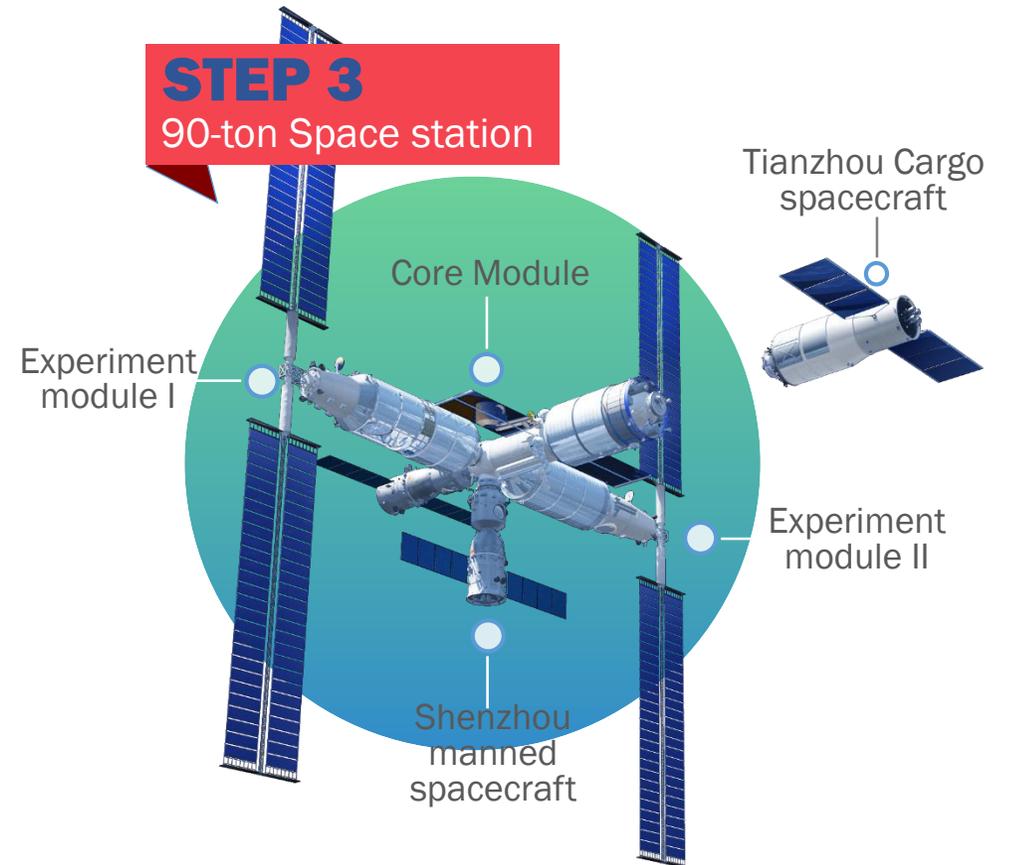
STEP 1
Manned Space Flight



STEP 2
EVA, Space Lab
Rendezvous & Docking



STEP 3
90-ton Space station



SPACE SCIENCE EXPLORATION

A prime role in China's Space Science & Exploration Missions by delivering over 30 satellites

Prime contractor of China's Lunar & Mars Exploration Program

2016 - XPNAV-1

X ray Pulsar based Navigation

2017 - HXMT-1

Hard X ray telescope

2018 - Magpie Bridge Relay satellite

Providing data relay communication between Chang'e 4 and ground station

2018 - Chang'e 4

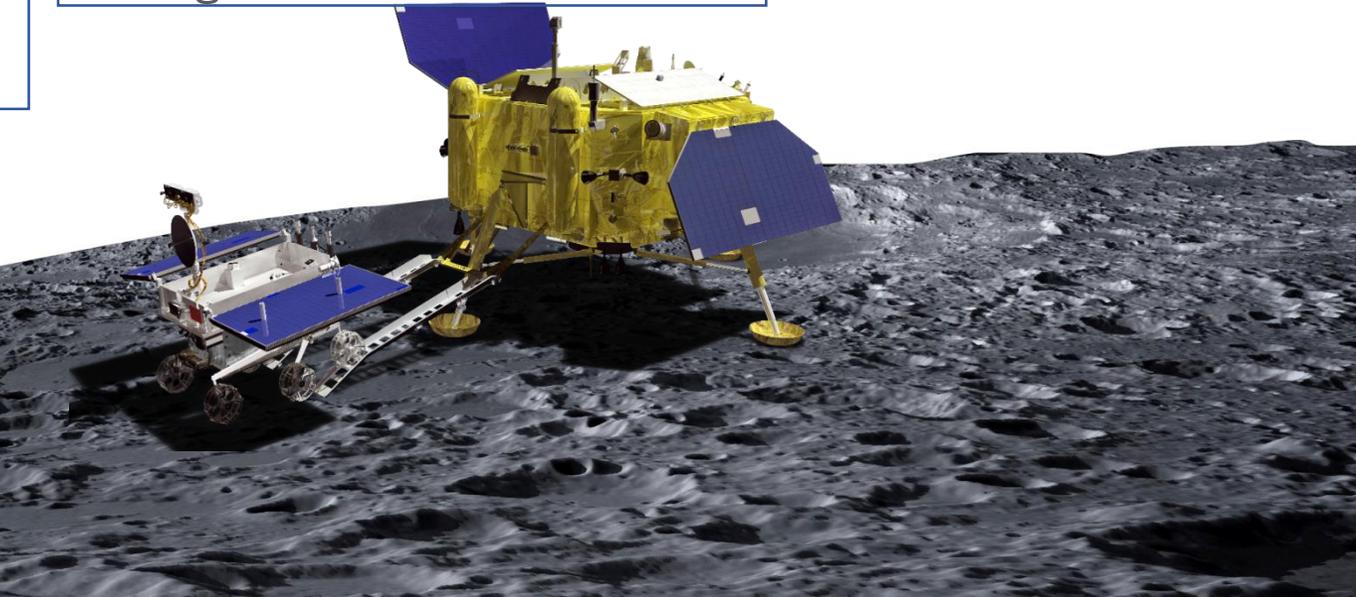
Soft-landing on the far-side of the moon

2019 - Chang'e 5

Sample collection of moon surface and returning to the Earth

2021 - Mars Exploration

Orbiting around the Mars & Soft-landing on the Mars surface

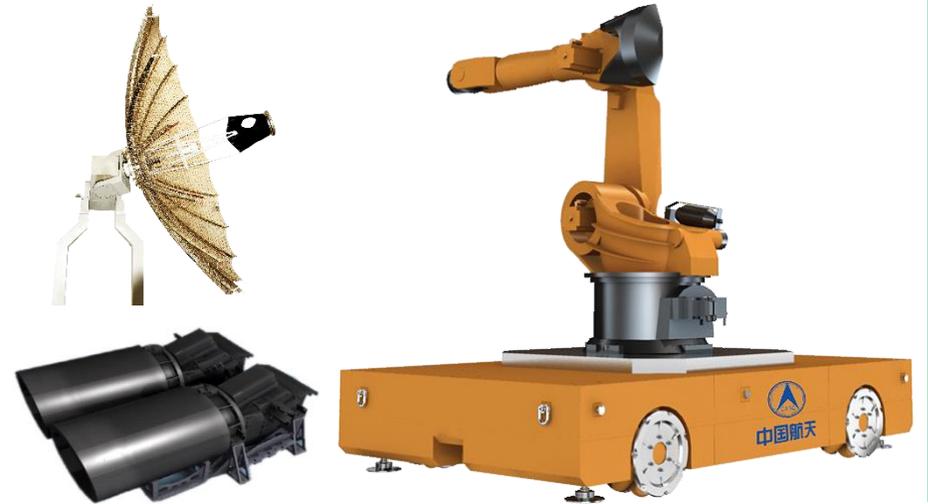


SPACECRAFT SUBSYSTEMS AND EQUIPMENT

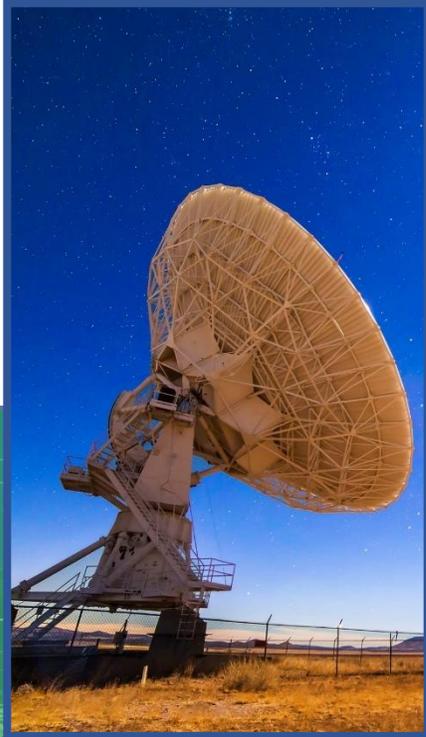
Reliable supplier of spacecraft subsystems and equipment.

100% subsystem and more than 90% equipment design and manufactured by CAST.

- **High performance orbit control and propulsion subsystems**
- **More than 90% self-manufactured Optical Camera**
- **All types of Antennas**
- **Reliable Self-developed Robotic Arm**



SPACE TECHNOLOGY APPLICATIONS



**Satellite
Applications**



**Intelligent
Equipment**



**Energy-Saving &
Environmental
Protection**



**Space
Biotechnology**

Launches 2017/2018



2017 (13 in total)

Telecommunications (4 in total)

Chinasat-9A

Remote Sensing (3 in total)

VRSS-2

Navigation (2 in total)

Beidou-3

Science (1 in total)

Hard-X ray telescope

Human Spaceflight (1 in total)

Tianzhou-1,

Micro Satellite (2 in total)

Pico -Nano-2

2018 (44 in total)

Telecommunications (5 in total)

APT6C

Remote Sensing (14 in total)

Superview 3/4

HY-1C/HY-2B

PRSS-1

CFOSAT

Navigation (12 in total)

Beidou-3

Science (4 in total)

CE-4

China Seismo-Electromagnetic Satellite (CSES)

Micro Satellite (9 in total)

Expected in 2019 (39 in total)

Telecommunications (7 in total)

APT-6D

ChinaSat-18

ChinaSat-6C

Remote Sensing (15 in total)

CBERS-04A

ZY-1 02D

Navigation (8 in total)

Beidou-3

Science (3 in total)

CE-5

HJ-2, HY-2C

Small & Micro Satellite (6 in total)

Jingshi-1

GLOBAL PARTNERS OF CAST





LET'S WORK TOGETHER CREATING A BETTER FUTURE



China Academy of Space Technology

