

The Chart Page

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The Global Race in Satellite Technology

US Scorecard in Advanced Satellite Communications Technologies

US Technology Lead

High-data-rate satellite communications
USATs and personal communications transceivers
Small satellites
Space applications for high-temperature superconductivity
On-board processing

US Technology Tie

With

Traveling wave tubes Europe
Electric propulsion Japan and Russia
Spacecraft antennas Japan and Europe
Intersatellite links Japan
Autonomous control systems Japan and Europe

US Technology Lag

Leader

Free space optical communications Japan and Europe
Advanced batteries Japan
Solar array systems Japan
Solid-state power amplifiers Japan
Pointing and positioning systems Japan
Large-scale deployable antenna systems Japan and Russia
Advanced system design and long-range planning concepts Japan
New application development Japan

Comparison of Government Roles

Area	Europe	Japan	US
Policy	Strong	Strong	Moderate
Planning	Moderate	Strong	Weak
Advanced development	Strong	Strong	Moderate
Support of industry	Strong	Strong	Weak
Support of international systems	Strong	Strong	Weak

Source: "Satellite Communications Systems and Technology," International Technology Research Institute, Loyola College, Baltimore, Md., July 1993.