

<b>Name</b>	Stephen RANSOM	<b>Born</b>	November 1942
<b>Expertise</b>			
Advanced concept/project development (Aerospace Industry); System engineering (Aerospace Industry); Interdisciplinary research (Aerospace industry); Technical/contractual study management (Space Industry); Degree-level student industrial training and academic tutoring (Aerospace); Aerospace history			
<b>Education</b>			
<b>1965</b>	B.Sc.(Eng.) Degree in Aeronautical Engineering, University of Salford, UK		
<b>1961 - 1965</b>	Student / Graduate Aeronautical Engineering Apprenticeship with British Aircraft Corporation, Military Aircraft Division, Lancashire, UK		
<b>Experience</b>			
<b>2005 -</b>	<b>LIQUIFER Systems Group Hoheneder Imhof GesbR, Vienna</b> Senior Associate Consultant, Advanced Projects. <ul style="list-style-type: none"> <li>• FIPES – Facility for Integrated Planetary Exploration Simulation (Study manager; ESA contract; completed 2006).</li> <li>• Analysis of Surface Architecture for European Space Exploration (Participant; ESA study; subcontract to Thales Alenia Space; completed 2008).</li> <li>• Conceptual design of a Pressurized Rover for Moon and Mars exploration (Participant; ESA study; subcontract to Thales Alenia Space; completed 2008).</li> </ul>		
<b>2005 -</b>	<b>SR Consultancy, Germany</b> Freelance Aerospace Consultant. <ul style="list-style-type: none"> <li>• Development of pressurized rover for Mars and Lunar exploration in conjunction with Architecture &amp; Vision, Munich (2005-2007).</li> <li>• New Types of Wheels for Moon and Mars Rovers (Project leader; DLR Study; completed 2008).</li> <li>• Auto-Rotation in Martian Descent and Landing (ESA Study; Consultant to Astrium GmbH, Bremen; awarded 2008).</li> <li>• LAPIS: Lander Package Impacting a Seismometer (DLR Concurrent Engineering Facility Study; Consultant, DLR Institute of Space Systems, Bremen; completed 2008).</li> </ul>		
<b>1983 - 2004</b>	<b>ERNO Raumfahrttechnik / EADS SPACE Transportation, Orbital Systems &amp; Operations, Bremen</b> Project Leader, Senior System Engineer and Study Manager, Advanced Concepts, Advanced Projects Departments. <ul style="list-style-type: none"> <li>• Space station systems study (ESA contract; completed 1984).</li> <li>• EURECA payload accommodation studies (ESA and NASA contracts; completed 1987 - 1992)</li> <li>• EURECA variants (ESA and DLR contracts; completed 1988)</li> <li>• EURECA refurbishment and servicing studies (ESA contracts; completed 1992)</li> <li>• PLATO (Platform Orbiter) Phase A studies (DLR/DARA contracts; completed 1987 - 1993)</li> <li>• Space technology development (ESA and DARA contracts; completed 1993 - 1996)</li> <li>• Micro-autogyro for Mars surface exploration (Bremen Senate and in-house funding; 1999 - 2004)</li> <li>• Moon and Mars mission scenarios (ESA contract and Bremen Senate and in-house funding; completed 2001 - 2004)</li> <li>• Space habitats (company funding; completed 2004)</li> </ul>		
<b>1992</b>	<b>RST Raumfahrt- und Systemtechnik, Warnemünde</b> Consultant, system engineering (3 month posting)		
<b>1979 - 1983</b>	<b>Vereinigte Flugtechnische Werke / MBB Unternehmensbereich Marine- &amp; Sondertechnik, Bremen</b> Project Leader: Highly manoeuvrable research aircraft. Project Engineer: Remotely-piloted aircraft projects and programmes.		

**1976 - 1978 ERNO Raumfahrttechnik, Bremen**  
System Engineer  
• Spacelab Pallet and Spacelab development

**1966 - 1976 British Aircraft Corporation, Military Aircraft Division, UK**  
Senior Project Engineer, international and national military aircraft projects and programmes.

### Relevant Projects Overview

With ESA, DLR, NASA, and European, US, Canadian and Russian Companies

Space industry:

1. Simulator for planetary exploration (2005 - 2006)
  - ESA/ESTEC study: FIPES – Facility for Integrated Planetary Exploration Simulation.
2. Robotic and human missions (1999 - 2008)
  - ESA/ESTEC study: Rotor landing systems for Mars, Venus and Titan.
  - ESA/ESTEC studies: European Mars mission architectures and technologies, industrial support to AURORA Programme and CDF activity on Human Missions to the Moon, surface architectures and elements for future European Moon and Mars exploration programme.
  - Company funded studies: robotic and human Moon/Mars scenarios, habitat concepts, pressurized rover concepts, planetary aerial vehicles, internal combustion engine applications to exploration scenarios.
  - Collaboration with Space Architects.
3. Technology demonstrators (1993 - 1995)
  - ESA and DLR studies: “Skunk Works” methodology, rendezvous & docking demonstrators, use of ISS and Mir for technology demonstration.
4. Unmanned, autonomous re-entry vehicle for long duration, orbital missions (1987 - 1993)
  - DLR studies: Co-inventor of concept.
5. EURECA programme (1986 - 1998)
  - ESA/ESTEC and NASA studies: Accommodation of European and American scientific payloads; adaptation of EURECA to meet specific scientific requirements, development of EURECA to meet other mission requirements, marketing activities.
6. International Space Station/Columbus Programme (1983 - 1995)
  - ESA/ESTEC and DARA/DLR studies: Space station and man-tended free-flying platform configurations, space station, servicing scenarios, accommodation of scientific and technology payloads, programmatic issues.
7. Spacelab Programme (1976 - 1978)
  - ESA Programme: System engineering related to Spacelab Pallet.

With Ministries of Defence in UK and Germany

Aircraft industry:

1. International military aircraft programmes and projects (1966 - 1976) – member of international project design teams, aircraft configurations and internal layouts (national and international).
2. National remotely-piloted aircraft programmes and projects (1979 - 1983)

### Papers + Publications + Lectures + Patents

1. Large number of technical papers as author and co-author presented at conferences and other events held in Germany, the Netherlands, the UK, Belgium, the USA and Canada.
2. Large number of presentations given to ESA and DLR as Technical/Contractual Manager of agency-awarded system studies.
3. Inventor and co-inventor of various aerospace applications patented in Europe, USA, Japan and China.
4. Invited for lectures to university students and national societies in Germany, France, Austria and the Netherlands.

**Additional Information**

1. Lecturer, History of Development of Aerospace Technology, Hochschule Bremen (University of Applied Sciences), Germany.
2. Personal tutor to students taking aerospace degrees at German and American universities and while doing industrial training in Germany.
3. Tutor to international students taking MSc degree in Space Exploration and Development Systems (SEEDS) programme, Germany.
4. Aerospace historian; researcher, author and lecturer on aerospace subjects. Books published in the UK and Germany.