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## Michael Heinze

### EXPERIENCE

Over 36 years of engineering experience at Hughes Aircraft Space & Communications Group, Boeing Satellite Systems, and Global IP with emphasis in communications systems development and validation. Extensive satellite payload development experience across several commercial market segments including FSS/BSS, DTH, Geo-mobile, and Broadband payloads. Significant experience with the end-to-end system engineering process including system architecture development and requirement development and validation.

#### **Technical Consultant**

Feb 2017 – Jan 2019

*Global IP - El Segundo, California*

Responsible to monitor the technical progress of the Global IP spacecraft development at Boeing with emphasis on review of the communications payload design, analysis, and test results. Responsible to perform RF Communications link analysis including Broadband Satellite Payload capacity analysis and adjacent satellite system interference analysis. Responsible to develop and review system operational concepts.

#### **Boeing Satellite Systems - El Segundo, California**

2002-2016

##### ➤ **ViaSat-2 Spacecraft Chief Engineer**

Jan 2013-Dec 2016

Responsible for the overall technical integrity of the ViaSat-2 spacecraft. Within this role, the main emphasis was to provide technical oversight of the broadband satellite communications payload development and validation. Additional responsibilities included proactive management of program technical issues, risks, and opportunities. Also served as the Co-chair of the program Engineering Review Board and was the senior customer technical interface.

##### ➤ **Space Systems Chief Engineer**

Jan 2007-Jan 2013

Provided technical guidance and oversight to both program system engineering teams and new business campaigns including the TDRS K/L campaign. Also responsible for technical oversight of the satellite payload technology roadmap development as well as oversight of system engineering cost and cycle time reduction initiatives. Very proficient in all aspects of the system engineering process and provided start-up guidance to new program system engineering teams including the TDRS K/L satellite and Intelsat 22 satellite program start-ups.

- **Senior Payload System Engineer** Jan 2002-Jan 2007  
Led communications payload system engineering teams supporting new business campaigns including the campaigns associated with the Terrestar and MSV (Light Squared) spacecraft procurements. Led initiatives to improve the payload system engineering process within the Payload system engineering functional organization with the objective of reducing cost and cycle time.

**Hughes Aircraft Company - El Segundo, California** 1986-1997

- **Thuraya Spacecraft Lead Payload System Engineer** 1997-Jan 2002  
Responsibilities included oversight of payload architecture development, Geo-mobile payload performance analysis and requirement flow down, Supplier hardware sell-offs, Payload test development, Payload test execution, Payload Recommended Operating Procedure (ROP) development, and customer operations training.
- **Geo-Mobile Spacecraft Payload System Engineering** 1996-1997  
Worked as a communications payload system engineer on the Agrani and APMT (Asia Pacific Mobile Telephone) program Payload System Engineering teams. Responsibilities included development of geo-mobile payload performance analysis, requirement flow down to payload units, and associated Payload Hardware Specification development and supported PDR.
- **Galaxy 8i Lead Payload System Engineer** 1995-1996  
Responsibilities included development of the satellite payload architecture, payload performance analysis, requirement flow down to payload hardware, and preparation for and support of Preliminary Design Review customer technical presentations. Led Payload System Engineering team.
- **DirectTv Payload System Engineer/Lead Payload System Engineer** 1990-1995  
Assigned to the lead payload system engineering (LPE) role and lead the payload system engineering team all the way through to satellite launch and payload in-orbit testing. Responsibilities included oversight of DTH payload performance analysis and requirement flow down, Supplier hardware sell-offs, Payload test development, Payload Recommended Operating Procedure (ROP) development, and Customer Operations training.
- **High Speed MODEM Development** 1986-1990  
Was part of a team responsible to Develop high speed Modulator/Demodulator (MODEM) hardware as part of a research and development project with emphasis on transmission channel conditions and bandwidth efficiency. This project successfully demonstrated extremely high data rate transmission through various transmission channel conditions.
- **Payload Test Engineer** 1982-1986  
Worked on various test development projects including Special Test Equipment (STE) design, Test plan / Test procedure development, and Spacecraft payload test support.

## EDUCATION

### BS, Electrical Engineering

*University of Missouri at Rolla*