

## SHUTTLE SERIES

### COMMUNICATIONS INTERFACE EQUIPMENT (CIE)

This subseries contains materials related to the development of the Communications Interface Equipment (CIE) unit, from 1981 to 1985. The primary function of the CIE was to provide a flexible, onboard two-way communication interface between attached and detached payloads, the orbiter communications and tracking and data subsystems and future Orbiter payload work station (OPWS) in terms of signal routing, format handling and command/telemetry handling. Its two basic functions were command (to direct operations) and telemetry (to monitor operations). The provenance of this collection is the Avionics Project Office (EH13) of the Avionics Division in the Engineering Directorate. The names of Steven Nance and Dave Tadlock appear on the majority of the documents. The collection needed only slight rearrangement for a chronological presentation. Two introductory folders on the functions and purpose of the CIE begin the subseries. The ensuing documents concern various aspects of the Preliminary Design Review (PDR) and the Critical Design Review (CDR). The collection ends with some documents relating to payloads and the OPWS.

#### Inventory

<b>SubHeading:</b>	<b>Box Number: 1</b>	
	STS 83-0577 CIE - An Advanced Orbiter Interface System for Payload Command Telemetry	October 25-27, 1983
	STS 85-0002 CIE Users Guide (rough draft)	March 1985
	CIE Program Status Review	July 14, 1982
	CIE PDR - v.2 Hardware Review Packages	August 2, 1982
<b>SubHeading:</b>	<b>Box Number: 2</b>	
	CIE PDR - v.3 CDRL and other Deliverables	August 2, 1982
	CIE PDR - Addendum Package	August 10, 1982
	CIE PDR (Maps, hotel notes)	August 10-12, 1982
	CIE PDR - v.1 Executive Summary	August 10-12, 1982
	CIE PDR material (RID's, 128-Kbs Forward Link Study Report, Shuttle Uplink Text and Graphics Scanner ICD)	October-September 1982
	CIE Delta PDR Package Delivery - v.3	December 6, 1982
	CIE PDR - v.1 Executive Summary	December 13, 1982
	CIE Delta PDR Meeting Minutes	December 21, 1982
	CIE PDR - Addendum Package	December 29, 1982
<b>SubHeading:</b>	<b>Box Number: 3</b>	
	CIE CDR - v.4 Drawings (OVERSIZE FOLIO - PLACED ON TOP OF COLLECTION)	April 1, 1983
	CIE CDR - v.3 CDRL and other Deliverables	April 1, 1983
	CIE CDR Handout Package	April 12, 1983
	CIE CDR (handwritten notes, memo, RIDs)	April-May 1983
	CIE CDR Minutes	April-August 1983
	STS 83-0268 CIE Design Requirements Document (DRD)	June 20, 1983
	STS 83-0360 CIE Integration Support Task 1	June 1983
	STS 83-0378 Avionics GSE Study for CIE Functional Path Verification	June 1983
	CIE Program Status Review	July 20, 1983
	CIE Delta CDR for Integration	August 8, 1983

**SubHeading:**

Hardware - v.1, Executive Summary	
Summary Report - CIE Integration Support	August 16, 1983
CIE Integration Hardware CDR Handout Package	August 17, 1983
CIE Overview	February 1984
JSC 17529 Annex 3 Flight Operations Support Annex CIE	July 1984
<b>Box Number: 4</b>	
CIE (Miscellaneous material)	n/d
CIE ECLSS Analyses	n/d
CIE Support Rack Analysis Vibration and Acoustics	n/d
Reconfigurable Payload Specialist Work Station (with appendix)	May 1981
Vendor Presentations about Orbiter AFD Payload Support Equipment	July 8, 1981
Present and Future Orbiter Payload Avionic Services	November-December 1982
Present and Future Orbiter Payload Avionic Services	February 1983
Spacelab Pallet System	July 25, 1983
Orbital Payload Workstation (OPWS) - blueprints	n/d