#### SPACE STATION PROGRAM OFFICE

## International and External Affairs Office

Gene Rice x2913

- 1P. <u>International Projects Engineer</u> (PA12). Activities involving the cooperative international programs with Canada, ESA, and Japan to prepare detailed plans for integration and implementation.
- 2P. <u>Policy Analyst</u> (PA12). Support external contacts, visits and meetings. Policy planning and analysis on special issues.

# Technical and Management Information System (TMIS) Integration Office John Cools x6581

3P. <u>TMIS Systems Analyst or Engineer</u> (PA13). Design, development, implementation and operation of an Agency-wide information system supporting technical and management areas.

## SE&I Office

Mark Craig x6125

- 4P. <u>Maintainability Engineer</u> (PB2). Application of maintainability engineering principles concerning failure tolerant systems design; redundancy definition and management; definition of orbital replaceable units; accessability requirements; special tools and skills requirements; etc. There is a strong relationship with maintainability and logistics engineering.
- 5P. <u>Commonality Engineer</u> (PB2). Application of engineering principles to define cost effective opportunities for usage of common hardware, software, or procedures. Focus on commonality opportunities between work packages, program elements, subsystems, and between the Station and the platforms.
- 6P., 7P. <u>Verification Engineers</u> 2 Positions (PB2). Analysis and definition of the Space Station Program overall verification strategy and approach. Focus on both ground and on-orbit verification and on procedures for verification of function after hardware repair or replacement, or after software alteration. Involves both mechanical and electronic systems.
- 8P. Systems Interface Engineer (PB2). Definition and analysis of the requirements for Space Station Program interfaces between Work Packages, elements, and subsystems. Focus on defining requirements and insuring their accomplishment on both sides of the interface from both a physical and functional standpoint.
- 9P., 10P. Systems Support Engineers 2 Positions (PB2). Analysis, definition, and integration of the physical and functional interfaces between the Space Station and transient vehicles, including the NSTS, OMV, OTV, platforms, and satellites. Focus on engineering integration of the hardware accommodating these vehicles.
- 11P. Platform Engineer (PB3). Overall analysis, systems engineering, and integration of the platforms in the Space Station Program. Focus on both co-orbiting and polar platforms is required.

- 12P., 13P., 14P. <u>Configuration Design Engineers</u> 3 Positions (PB3). Overall design and configuration of the Space Station with emphasis on the Computer Aided Design (CAD) process. Includes weights and balance analyses and definition and alternative configuration studies from a design standpoint.
- 15P., 16P., 17P. <u>Integrated Analysis Engineers</u> 3 Positions (PB3). Overall analysis of the integrated Space Station and associated elements (platforms, OMV, OTV, etc.). Analysis areas include structural behavior and response, overall control and stability, overall thermal analysis, integrated performance studies, etc.
- 18P. Man Systems Technology Engineer (PB4). Definition, oversight management and technical support for the Space Station Advanced Development program in the Man Systems area (ECLSS, EVA, Module Internal Architecture, Crew Interface and Equipment, etc.).
- 19P. <u>Information Systems Technology Engineer</u> (PB4). Definition, oversight management and technical support for the Space Station Advanced Development program in the Information Systems, Data Systems, and Communications/Tracking areas.
- 20P., 21P. Energy Systems Engineers 2 Positions (PB5). Definition of requirements, and the systems engineering and overall integration of the propulsion, power, and fluids management subsystems for the Space Station program.
- 22P. <u>GN&C Systems Engineer</u> (PB6). Definition of requirements, and the systems engineering and overall integration of the control and stability technical area of the Space Station program.
- 23P. Environmental Systems Engineer (PB7). Definition of requirements, and the systems engineering and overall integration of the ECLSS and EVA subsystems of the Space Station program.
- 24P. Thermal Systems Engineer (PB7). Definition of requirements, and the systems engineering and overall integration of the active and passive thermal control subsystems of the Space Station program.
- 25P. Man Systems Engineer (PB8). Definition of requirements, and the systems engineering and overall integration of the Man Systems technical areas of the Space Station program.
- 26P., 27P., 28P. Secretary 3 Positions (PB2, PB3, PB8).
- Data Management and Operations Office Milt Contella x5896
- 29P. Prelaunch Operations Engineer (PC2). Coordinate activities associated with the "prelaunch operations plan" and development of overall convergence schedule and tasks to define the prelaunch requirements. Represent DM&O Office at SIB and SSCB on prelaunch issues and maintain cognizance of activities at two of the work package centers.

- 30P. Crew Integration and Station Maintenance Engineer (PC3). Same as above except for crew integration and station maintenance.
- Prelaunch Operations Analyst (PC2). Coordination of the budget inputs and reviews for prelaunch requirements, equipment and facility funding. Represent office at SIB and SSCB on prelaunch issues. Maintain cognizance of the prelaunch activities at work package centers and non-work package centers. Work with the Missions Operations Office to integrate prelaunch operations concept into the overall Space Station operations plan.
- 32P. Crew Integration and Station Maintenance Analyst (PC3). Same as above except for crew integration and station maintenance.
- 33P. Lead Engineer for Crew Integration and Maintenance (PC3). Integration of crew and maintenance requirements from all NASA field Centers into the appropriate design requirements. Assure incorporation of requirements into the systems definition of the Space Station program elements. Definition of maintenance concepts, maintenance standards and resource allocations, crew accommodations and systems interfaces; EVA and safe haven requirements; GFE and training requirements, and unique customer interfaces.
- 34P. Mission Operations Engineer (PC4). Provide support on the Level C UPN 484 NASA Center contract tasks. Ongoing critique of existing 484 tasks from a product status, schedule performance, and adequacy of funding perspective. Recommend new study tasks and/or realignments of existing tasks. Focal point for inputs to and status of the Level B master schedule data base.
- 35P. Ascent and Assembly Engineer (PC4). Development of the ascent and assembly STS/SSP operations scenario. Close coordination with the JSC MPAD organization relative to flight profile operations, A&R considerations and STS performance capabilities. Insure that SE&I and WP2 responsibilities for assembly sequence definition, STS proximity operations analysis, and docking/berthing strategy reflect operations capabilities. Develop operations concepts to support Code S, Code E (and others) operations concept development efforts.

## Customer Integration Office

## Olav Smistad x6426

- 36P. Deputy Manager (PD2). Commercial/Technology Integration Office to lead and direct technology development missions and activities performed by Office personnel.
- 37P. Technology Development Mission Advocate (PD2). Responsible for activities in materials/structures/information sciences/human factors.
- 38P. DMS and C&T Engineer (PD2). Responsible for activities in user requirements in data management systems and communications and tracking.
- 39P. Technology Development Mission Advocate (PD2). Responsible for activities in power, propulsion, and energy systems.

- 40P., 41P. Program Analysts 2 positions (PE). Analysis and evaluation of specific program budgets such as Program Support, TMIS, and Customer Integration. POP budget process for both the Definiton and Development phases of the program.
- 42., 43P. <u>Lead Resource Analysts</u> 2 positions (PE2). Analysis and evaluation of the Space Station work package cost estimates and subsystem cost estimates. Support both the Design-to-Cost and POP budget processes. Ancillary duties involve budget integration and project statusing.
- Management Information Center Analyst or Engineer (PE3). Integration of Management Information Centers (MICs) across the program. Develop baseline program requirements, assess the current MIC configurations and planning across the program, develop and implement plans for meeting baseline requirements. Should be familiar with the hardware and software necessary for the simultaneous operation of MICs at multiple locations.
- 45P. Schedule and Performance Management Analyst or Engineer (PE4). Responsible for developing Space Station Program schedules, maintaining schedule data bases and networks, and for performing schedule analysis.
- 46P. Level B Change Coordinator (PE3). Perform change coordination for Level B changes including program-wide coordination of Level B Change Requests, integration of change evaluations, and issue/problem identification and resolution. Assure that proper actions are identified and implemented based on Level B program direction. Support Space Station Control Board meetings and coordinate major program reviews.

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materials/structures/information sciences/human factors.

date management systems and communications and trackings

. Technology Development "issign Advocate (FD2). Responsible for activities in

### SPACE STATION PROJECTS OFFICE

## Project Engineering Office

Jerry Craig/Al Jowid x3977

1K. Project Integration Engineer (KB). Managing, coordinating, and integrating project functions, and integrating tasks of Work Package 2 definitions contractors within the Space Station Projects Office, with other JSC functional organizations, and with the other work package centers.

Engineering and Operations Office KC, Tony Redding x5491; KC2, Bob Dotts x5491; KC3, Shelby Owens x2546; KC4, Bill Simon x2638

- Configuration Design Manager (KC). Responsible for the overall Space Station configuration analysis, end-to-end systems analysis and assembly sequence definition. Initial assignment will involve serving as the Man-Tended (MT) Study Technical Manager responsible for all technical aspects of the man-tended option definition study. The MT manager will be responsible for integration and coordination of the JSC line organization activities, the phase B contractor activities, and the Level C technical discipline manager activities related to the MT study, along with coordination with Level B.
- 3K. Manager, Systems Engineering and Analysis Office (KC2). Responsible for the technical management and coordination of the Space Station WP-2 systems design and analysis.
- 4K. Systems Requirements Manager (KC3). Responsible for the Level C requirements definition and control. Is the Level C focus for Work Package 2 SSP Design Requirements and associated Level B controlled requirements.
- 5K. Maintainability Manager (KC3). Responsible for control and implementation of the maintainability requirements for Level C, WPO2 and for coordination of design criteria between other WP's.
- 6K. Database/Evaluation Manager (KC3). Development and coordination of all database inputs with support contractor personnel including Level C engineering schedules, schedule networks (EMS), interface data, system and subsystem definition data. Preparation for engineering reviews in support of project control functions.
- 7K. Systems Interface Engineer (KC3). Defines and develops interface requirements (IRD's and ICD's) for interface planning and for the system/subsystem specifications, for all elements of WP-2 and coordinates, defines, and establishes inter-WP agreements for the interface design criteria.
- 8K. Advanced Development Manager for Communications and Tracking, Power Management and Distribution (KC4). Integration of resource requirements, participation and interaction with ongoing technology development efforts, coordination of industry (Phase B contractors) use of test beds and other facilities, and interaction with other NASA Center advanced development activities.

Advanced Development Manager for Data Management, Guidance, Navigation and 9K. Control (GN&C) (KC4). Integration of resource requirements, participation and interaction with ongoing technology development efforts, coordination of industry (Phase B contractors) use of test beds and other facilities, and interaction with other NASA Center advanced development activities.

# Manufacturing and Test Office Ed Armstrong x3824

10K. Test and Verification Manager (KD). Management of planning, definition, analysis and implementation of test and verification activities. Interfaces with the contractor's test and verification managers to evaluate and provide leadership to their efforts. Evaluates and determines proper trade-offs between ground and on-orbit verification testing.

## Customer Utilization Office

Don Gerk€ 4734

- Payload Accommodations Manager (KE). Responsible for the payload 11K. accommodations specification applicable to W. Analyses of end-to-end treatment of Space Station payloads including customer security, payload integration and checkout, payload packaging, mayload servicing, resources provided, and total environment of the manned element.
- Manager for Customer Advocacy (KE). Represents Level C (WP-2) and JSC on NASA 12K. Space Station advocacy groups; i.e., (1) Commercial Advocacy Group; (2) Technology Advocacy Group. Responsible for a vocating and tracking JSC-sponsored Space Station payload studies (currently there are four technology, five science and one commercial studies).
- Customer Operations Manager (KE). Responsible for the customer operations 13K. specification applicable to WP-2, includes such issues as ease of payload Nervicing, degree of transference of payload operations and independence of payload operations. Serves as MF-2 representative to customer operations working groups for operations planning.

coordination of industry/(Phase 8 contractors) use of test beds and other

- GS-6 Secretary, Customer Utilization Office (E). 14K.
- GS-5 Secretary, Project Engineering Office (KB). 15K.
- GS-4 Clerk-Typist, Project Engineering Office (KB).
- GS-5 Secretary, Engineering and Operations Office (KC4). 17K.

interaction with ongoing technology development efforts,

GS-4 Clerk-Typist, Engineering and Operations Office (KC2).