



With you when you fly

ARMSTRONG

FLIGHT RESEARCH CENTER



Welcome

to

Armstrong Flight Research Center's (AFRC)

*Research Engineering &
Facilities Support Services (RF&ESS)*

Industry Day

DRAFT Solicitation:80AFRC19R0022

17 September 2019



Introduction



The Mission Operations Directorate of AFRC provides NASA with efficient and effective Dryden Aeronautical Test Range (DATR) operations and engineering, Simulation Lab (SIM) support, and center-wide information technology (IT) services.

The Research Facilities and Engineering Support Services (RF&ESS) Contract provides engineering and technical services required to meet the mission.



DATR



SIM



IT



Goals of Industry Day



- Promote competition of the RF&ESS acquisition
- Enhance Industry's understanding of the RF&ESS requirement
- Provide industry with the opportunity to meet with NASA early and provide input to the RF&ESS procurement strategy
- Encourage offerors to submit questions and comments electronically via email to cacie.carrillo@nasa.gov or in person during Industry Day



Safety and Security



Safety:

- Emergency Exits
- Meeting location
- Proper clothing and footwear
- Use of handrails when climbing stairs
- General Awareness at each site

Security:

- Badges
 - Must be worn at all times (While onsite)
 - Must be properly displayed
 - Must be returned upon conclusion of the conference
 - Will be collected at the end of the tour
 - Government Employee Escorts required at all times while on site
 - No video or audio recordings



James Eastman

Procurement Officer

ARMSTRONG

FLIGHT RESEARCH CENTER

Where the Sky's the Limit



80AFRC19R0022

Photo by Heather Maliska



Bruce Lipe

Range Chief Engineer



Organizationally Identified at AFRC as Code 600

Code 600 Vision: Partners for Mission Success

Code 600 Mission: We leverage our expertise to provide effective, efficient, and secure Simulation, Range, and IT solutions for our mission partners.



Mission Operations Directorate



Director- Gary Kellogg (Acting)

Deputy- Darryl Burkes (Acting)

Administrative Assistant: Jasmine Ocegueda Para
(Code 600)

Mission Integration Office

(Code 600)

Olivia Carte (Acting)

[PWS 3.0, 4.0, WBS 510]

Range Engineering
Branch

(Code 610)

Bart Rusnak
(Acting)

[PWS WBS 110, 130]

Range Operations
Branch

(Code 620)

Tracy Ackeret
[PWS WBS 120, 140,
150, 160]

Simulation
Engineering Branch

(Code 630)

Aric Warner
[PWS WBS 210, 220]

Information
Systems Branch

(Code 640)

Russell Leonardo
[PWS WBS 310-430]



Kari Alvarado

Team Lead, Mission Integration Office (MIO)



Mission Integration Office (Code 600)



The Mission Integration Office (MIO) [supports all branches of the Code 600 Directorate](#). We serve as the primary interface and information hub for the Directorate leadership team in the area of business services and directorate performance monitoring.

While the MIO is not directly staffed through the RF&ESS contract, all RF&ESS direct contract management and program management functions (and associated staff) are considered a vital part of the MIO. (Reference PWS sections 3.0 and 4.0 fully, and paragraph 5.16, WBS 510.)

Contracting Officer Representative (COR) and Alternate COR reside within the MIO. Collaboration with RF&ESS contract/program/project managers occurs routinely to ensure an effective and efficient operation in order to meet the NASA mission.

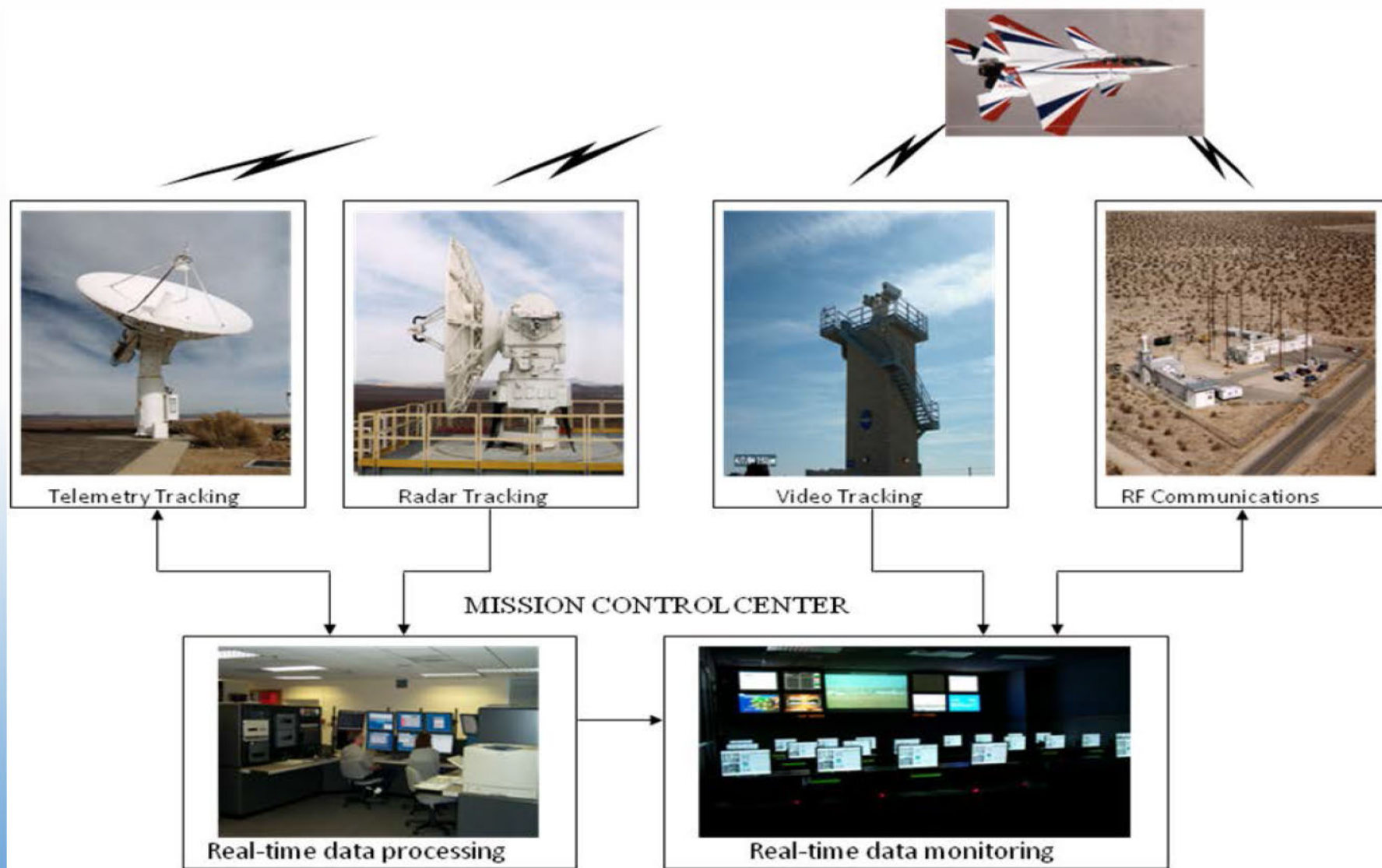


Bruce Lipe

Range Chief Engineer



Range Operations and Engineering Communication





Range Engineering (Code 610)



Range Software Engineering

Software Development & Sustainment

- Mission Control Center Systems Engineering
- Telemetry and Radar Acquisition Processing System
 - IRIG 106 Telemetry Processors
 - USAF Mission Control System
 - Smartronix Omega 3000 (phasing out)
 - Symvionics IADS display system
 - Flight Data Archive
 - Positional Awareness Map-3D
 - Flexible Acquisition Processing System
 - IRIG 106 Chapter 10 recorders
- Radar Information Processing System (RIPS)
- ARMD Flight Data Portal (AFPP)
- Big Array Switching System (BASS)
- Operating Systems: Windows and Linux
- Programming Languages: C, C++, and Java
- Team Foundation Server (TFS) development environment
- Performs verification testing and supports validation testing performed by the Government

Field Service Engineering

- Performs system buildup & support
 - MCC workstations
 - Telemetry processing systems
 - Network infrastructure
 - IRIG time distribution
- In-house customer support
 - Liaison between DATR Operations and Range Software engineering
 - Supports DATR system administrators

Systems Administration

- Mission Control Centers
- DATR development network
- Remote site workstations & servers
- Patch and vulnerability management
- Network systems
- ISSO support



Tracy Ackeret

Range Operations Branch Chief



Range Operations (Code 620)



Armstrong's Dryden Aeronautical Test Range (DATR) supports flight operations and low Earth-orbiting missions. Precision radar provides tracking and space positioning information on research vehicles and other targets. Fixed and mobile telemetry antennas receive real-time data and video signals from the research vehicle and relay this data to telemetry processing areas.

- Fixed Telemetry Systems

- System use must be coordinated through the Armstrong Mission Operations Directorate, Range Operations Branch or the Edwards Air Force Test Center depending on Project support agreements.
- DS-3 Data Links to other Test Range Facilities can provide Telemetry, Radar, Video, and Communication interface for real-time support at Edwards to remote Mission Control Centers.
- Expertise supporting flight test and ground test programs requiring test vehicle communications, data retrieval, upland link command, and control within local and extended test range facilities through established alliance agreements and shared system.



Range Operations (Code 620)



- Fixed RIR 716C Precision Radar Systems
 - High-accuracy C-band instrumentation radars provide Time Space Positioning Information (TSPI) of research aircraft and low earth orbiting spacecraft to the mission control center.
 - Targets tracked out to 300 nautical miles with accuracies to 0.0006 degrees in angle and 30 feet in range.
 - The radar antennas have the capability to accept acquisition data in various formats, record the data onsite, and provide post-flight radar data in engineering parameters.
 - Differential Global Positioning Satellite (DGPS) ground station.
 - Down-linked GPS embedded in the aircraft telemetry signal can provide positioning information to ground controllers.
 - Federal Aviation Association (FAA) radar surveillance data is also available in the mission control center.



Range Operations (Code 620)



- DATR Communications
 - The Radio Frequency (RF) Communications facility provides more than 40 ultra high frequency (UHF), very high frequency (VHF), and high frequency (HF) transmitter receivers, and a UHF flight termination system.
 - Available Test Range intercommunication system between Armstrong facilities, NASA centers, other government agencies, and industry partners, consists of trunk lines, communication panels, military ground communication networks, fiber optic, and satellite systems.
 - Provide Land Mobile Radio service and maintenance as required for mission support.



Range Operations (Code 620)



- The Video Control Center provides local airspace video coverage and ramp camera video coverage for real time mission support as well as video recording and distribution. The VCC processes, records and distributes standard and high definition video as required.
- The Mission Control Center provides real time mission monitoring for test control and data monitoring. 25 user stations, viewing room, and a test safety station for mission monitoring. Mobile control room for missions off R-2508. IRIG 106 PCM telemetry and radar processing, situational awareness displays, and post flight processing of data.



Aric Warner

Simulation Engineering Branch Chief



Simulation engineering capability at Armstrong is focused on providing high fidelity fixed-base aerospace vehicle simulations which support research from concept through flight test phases of development.

This capability consists of batch, pilot-in-the-loop, and full hardware-in-the-loop simulations.

RF&ESS contractor team members in the SIM Branch perform systems administrative duties for computing assets in the branch. Team members also provide engineering support to include configuration management documentation and occasional electro-mechanical design work in support of SIM buildup and maintenance.



Haig Arakelian IT Operations Branch Chief



Information Technology (Code 640)



The Office of the Chief Information Officer (OCIO), Code 640, is chartered as the primary source of the information systems, products, and services that comprise the Center's Information Technology (IT) infrastructure. The AFRC IT infrastructure is the combined set of networks, data centers, hardware and software systems, applications, processes, and services that support the management of the life cycle for technical and management information. This life cycle includes information capture, collection, organization, presentations, disseminations, protection, archival, and retrieval.

The mission of the NASA IT organization is to increase the productivity of scientists, engineers and mission support personnel by responsively and efficiently delivering reliable, innovative and secure IT services.



Information Technology (Code 640)



IT Services included in the RF&ESS requirement include:

- Applications Development and Operational Support Services
- Data Center and System Administration Services
- Service Desk and Business Support Services
- IT Systems Engineering Services
- Office of Protective Services (OPS) Support Services
- Administrative and In-Flight Photography Services (MultiMedia)
- Administrative-Audio/Video and In-Flight Video Support Services (MultiMedia)
- Graphics and Illustration Services (MultiMedia)



Application Development and Operational Support Services

Forms Development Support

- Forms applications
- Forms Creation
- Forms Modification

Content Management

- NASA forms development
- Web content management
- Web page development
- SharePoint
- Intranet Sites

Application Development

- SharePoint development
- Web applications development
- Oracle & SQL database development
- Programming Languages (C++, JAVA, etc.)
- Business solutions and training

Application Administration

- COTS application implementation & administration
- Application customization



Data Center and System Administration Services

Computing Services

- Windows
- Linux
- Solaris
- Data Storage Services
- Virtual Machine Infrastructure
- High Performance Cluster

Value-Added Services

- System Administration
- Lab & Engineering Seat Management
- Data management and delivery (i.e.: for flight data)
- License management
- Data Housing Repository
- Home Drives
- On and Off-site Backup Storage
- Patch and Vulnerability Management

Housing Services

- Power
- Cooling
- Rack space in Tier III Data Center





- **IT Systems Engineering (ITSE) Services**

Support the development of IT solutions to meet the needs of AFRC. Assist organizations, projects, and programs in the development and documentation of current and future system and security architectures. The ITSE will serve as an IT Liaison supporting the assessment and documentation of customer systems, applications, records, and System Security Plan (SSP) Assessment and Authorization (A&A) requirements. The ITSE's must communicate IT policy, process, and strategy changes to the organizations, projects, and programs which they support and assess impacts and activities necessary for their implementation.

- **Local Armstrong Helpdesk and Conference Room Scheduling**

Provide employee change requests, AFRC-specific application support, business application account management, computer and storage assistance, conference room scheduling and support, operator services, phonebook updates and WebEx scheduling.



Office of Protective Services (OPS) Support Services

Office of Protective Services (OPS), provides physical security and access control for all AFRC locations and buildings. The service is provided through the RF&ESS contract.

RF&ESS contractor team members provide protective services control center operations and maintenance

- Provide a Security Systems Administrator and a Security Regional Administrator in support of system administration, hardware and software application maintenance, and troubleshooting of security systems.

OPS security systems include: voice/data recording equipment, access control, intrusion detection systems, badging systems, video surveillance systems and Emergency Operations Center (EOC) systems.



Multimedia Services

The Video Production Group supports a myriad of audio, visual, and production requirements for Armstrong Flight Research Center.

- ISF Auditorium Support
- Live Event Support (on/offsite)
- Conference Rooms
- Television Distribution
- TV Van Operations
- Production Video Support
- Full Video Service Applications
- Aerial Videography

Graphics Services has the ability to create visual material both electronically and manually.

- Concept Drawings
- Technical Illustration
- Research Report Art
- Presentations
- Poster Sessions
- Event Promotion Materials
- Publication Design & Layout
- Design Consultation



Multimedia Services

Video Production Services

- Video Production
- Conference room A/V Design
- AFRC video archive

Graphics & Illustration Services

- Presentations
- Reports
- Outreach

Photography Services

- In-flight and standard photography
- Photo Production
- AFRC Photo Archive

Video Support

- In-flight video
- HD transmit capability
- TV Mobile Video





Cacie Carrillo

Contract Specialist



Contract Overview



- The purpose of the pre-proposal conference is to provide prospective offerors the opportunity to view the “general and local conditions”
- The formal Request for Proposals (RFP) takes precedence over the draft solicitation or conference information.
- All questions must be submitted in writing to Cacie Carrillo, including those generated by today’s conference & tour.



Contract Overview



- Draft Request for Proposals (DRFP)
 - Draft number: 80AFRC19R0022
 - Posted Date: August 28, 2019
 - Response Date: September 30, 2019
- DRFP issued in accordance with FAR, NASA FAR and Agency and Center directives
- Prospective Offerors should monitor the Federal Business Opportunities website, www.fedbizopps.gov for updates to this requirement, including responses to questions or comments received.



Contract Overview



- Draft Request for Proposals (DRFP)
 - Provided for informational purposes only
 - No proposals solicited at this time
- Industry comments for improvement are encouraged
 - Questions or comments due September 30, 2019
 - Submit in writing to Cacie Carrillo at cacie.carrillo@nasa.gov



Contract Overview



- Contract Type
 - Hybrid contract with Firm Fixed Price and Time and Material CLINs
- Noteworthy Clauses
 - 52.246-11 Higher-Level Contract Quality Requirement (Dec 2014)
 - 52.222-46 Evaluation of Compensation for Professional Employees (Feb 1993)



Contract Overview



- Draft Solicitation description:
 - Sections A through J becomes the contract
 - Documents and attachments
 - Listed in Section J
 - Anticipate that some of these documents will be revised before the issuance of the formal RFP
 - Wage determinations, Attachments: J-05A-D
 - Service Contract Labor Standards
 - Construction Wage Rate Requirements statute
 - Section K- Representations and Certifications
 - Complete and submit with proposal



Contract Overview



- Section L- Proposal Preparation Instructions
 - Volume I: Technical Approach
 - Provide a written technical approach which describes existing capabilities to meet various task requirements identified in the PWS.
 - 75 page limitation
 - Volume II: Past Performance Volume
 - Contractor will send questionnaires to references
 - Government will verify references
 - Government may use other sources of experience and performance information
 - 25 page limitation
 - Volume III: Pricing Volume
 - Offerors are required to propose schedule and pricing in relation to the FFP portions of this requirement in accordance with the following period of performance.

Offerors are required to provide T&M burdened standard and over time rates



Contract Overview



- Section M- Evaluation Factors for Award
 - This is a competitive Price Performance Trade-off best value source selection
 - The evaluation factors are
 - Technically acceptable
 - Past Performance
 - Price
 - The Government will award a contract resulting from the solicitation to the responsible Offeror using the best value continuum where all evaluation factors other than price, when combined, are significantly more important than price.



Contract Overview



- Anticipated Period of Performance:

60 day Phase-In: 04/15/2020 to 06/14/2020

Base period: 06/15/2020 to 06/14/2021

Option Period 1: 06/15/2021 to 06/14/2022

Option Period 2: 06/15/2022 to 06/14/2023

Option Period 3: 06/15/2023 to 06/14/2024

Option Period 4: 06/15/2024 to 06/14/2025



Procurement Schedule



All dates are subject to change. Prospective Offerors should monitor the Federal Business Opportunities website, www.fbo.gov for updates to this requirement, including responses to questions or comments received.

- Draft RFP response due: September 30, 2019
- Final RFP release: Estimated October 2019
- Proposals due: Approximately 30 days after RFP release
- Contract Award: Estimated April 2020

CHANGES TO NOTE:

The Federal Business Opportunities (FBO) is being moved to System for Award Management (SAM) in October 2019.



Special Consideration



- Prospective offerors are reminded not to contact incumbent personnel (either directly or through electronic means) during duty hours or at their place of employment, as such contacts are disruptive to the performance of the current contract



Tour Guidelines



- Observation Only
 - No photography
 - No audio or video recording
 - Do not interfere with workforce
 - Mission takes precedence over tour- may be delays if an active mission is in progress
- Time Restrictions
 - Multiple locations to be seen over a brief period of time
 - Request flexibility and understanding if we need to deviate from schedule
 - All questions must be submitted in writing to Cacie Carrillo
 - Please use restroom facilities before we depart on the tour
- Wrap-up will occur in the ISF and badges will be collected at that time.



THE FORMAL REQUEST FOR
PROPOSALS (RFP) TAKES
PRECEDENCE OVER THE DRAFT
SOLICITATION OR CONFERENCE
INFORMATION.



Please submit all questions or comment
in writing to Cacie Carrillo in writing,
either in person today, or by email at
cacie.carrillo@nasa.gov

RESEARCH FACILITIES AND ENGINEERING SUPPORT SERVICES (RF&ESS)

80AFRC19R0022

Draft RFP - Industry Day

September 17th, 2019


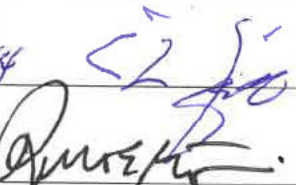
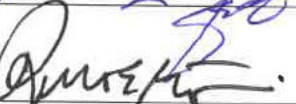
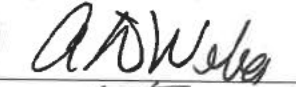




Print Name	Company	E-mail	Phone	Signature
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Tracy Ackert	NASA		x741	T.A. Ackert
Mae Yook Wong	NASA		321 8	Mae Yook Wong
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Dave Jones	NASA	david.a.jones@nasa.gov	3086	Dave Jones
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Cacie Carrillo	NASA	Cacie.carrillo@nasa.gov	7044	Cacie Carrillo
Kari Alvarado	NASA	Kari.m.alvarado@nasa.gov	2559	Kari Alvarado

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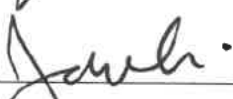








Print Name	Company	E-mail	Phone	Signature
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September 17th, 2019

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James Easton	NASA	James.W.Easton	2881	
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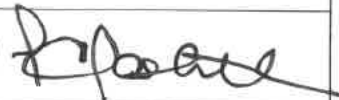


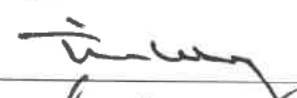

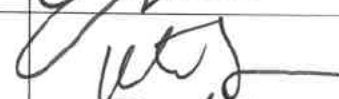

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September 17th, 2019

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