Semantic MediaWiki Conference

Fall 2014

Meeting Minutes

Or …

How we learned to stop emailing and love the wiki

Daren Welsh, *NASA Flight Operations*

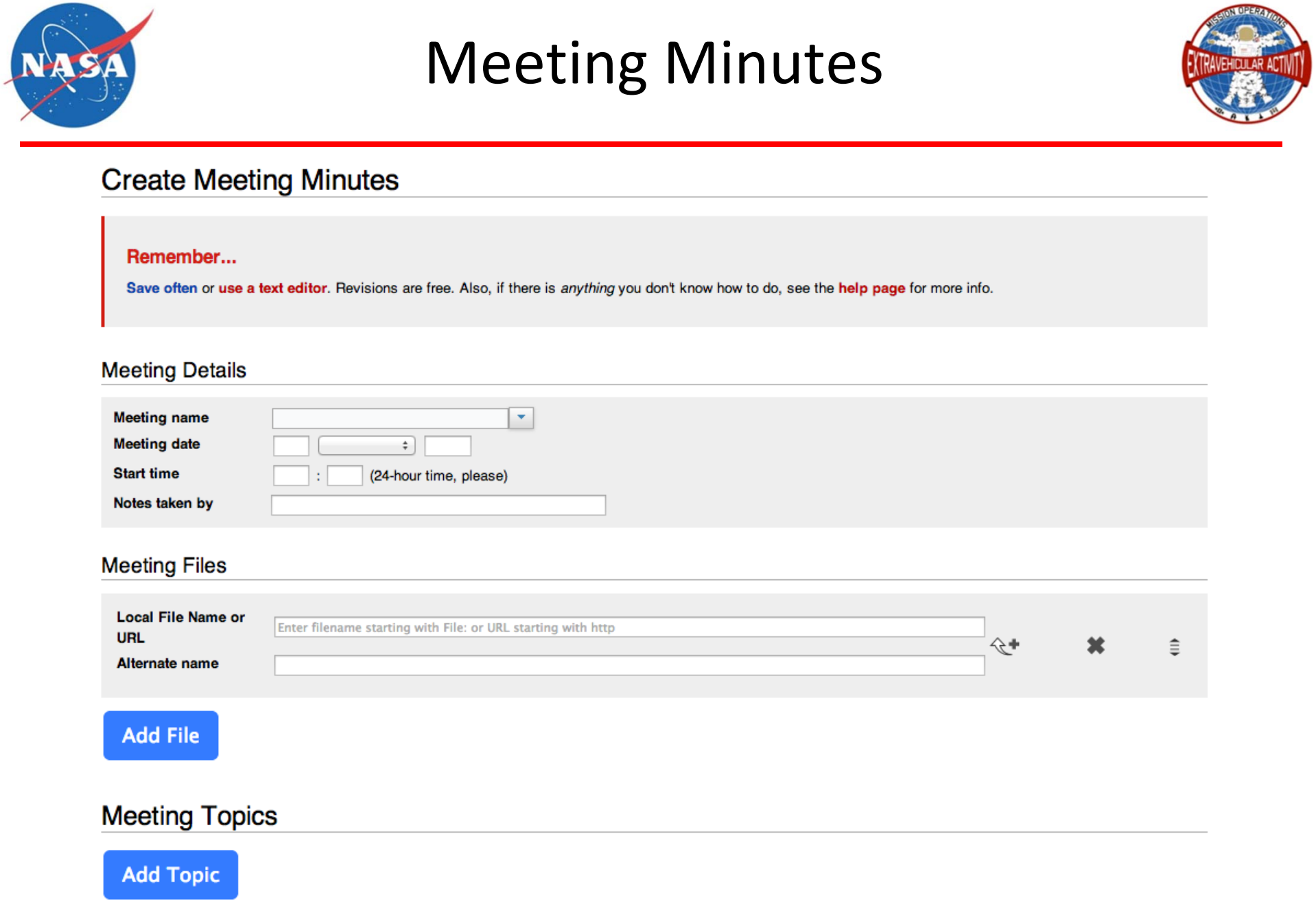
Email!

- Email is necessary, but abused
- Email is good for conversations, but a *terrible* way of storing data

Meeting Minutes

- We can't eliminate all email,
  but maybe just notes from meetings
- Meeting Minutes template/form is very simple
  - Type of meeting
  - Date
  - Time
  - Attendee
  - Attachments
  - Links to documents
  - Topics
    - Title
    - Content

Meeting Minutes



Meeting Minutes

Meeting Topics

Safety Tether Routing

Synopsis: *For [[US EVA 26]], the crew will translate along the nadir route of S1 and fairlead their tethers at the top of the [[CETA Spur]].*

370 characters remaining (500 max)

```
For [[US EVA 26]], the crew will translate along the nadir route of S1 and fairlead their tethers at the top
of the [[CETA Spur]].

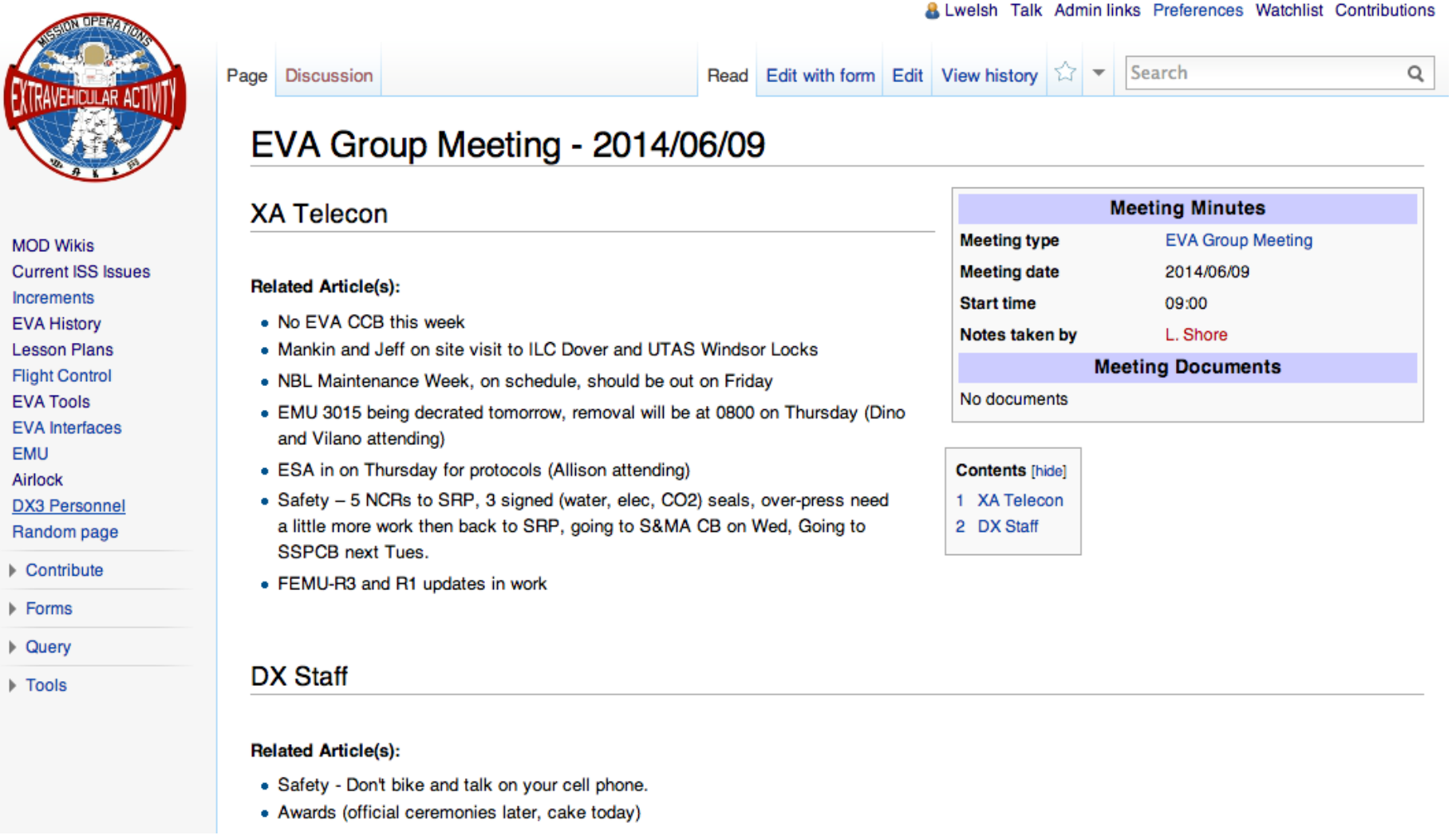
Testing of this translation path has been completed at the [[NBL]] on 4 June 2014. Details can be found on
the [[US EVA 26]] page.
```

Topic Title

Related articles

Add Topic

Meeting Minutes



Lwelsh Talk Admin links Preferences Watchlist Contributions

Page Discussion Read Edit with form Edit View history Search

MOD Wikis
Current ISS Issues
Increments
EVA History
Lesson Plans
Flight Control
EVA Tools
EVA Interfaces
EMU
Airlock
DX3 Personnel
Random page
Contribute
Forms
Query
Tools

EVA Group Meeting - 2014/06/09

Meeting Minutes	
Meeting type	EVA Group Meeting
Meeting date	2014/06/09
Start time	09:00
Notes taken by	L. Shore
Meeting Documents	
No documents	

Contents [hide]
1 XA Telecon
2 DX Staff

XA Telecon

Related Article(s):

- No EVA CCB this week
- Mankin and Jeff on site visit to ILC Dover and UTAS Windsor Locks
- NBL Maintenance Week, on schedule, should be out on Friday
- EMU 3015 being decrated tomorrow, removal will be at 0800 on Thursday (Dino and Vilano attending)
- ESA in on Thursday for protocols (Allison attending)
- Safety – 5 NCRs to SRP, 3 signed (water, elec, CO2) seals, over-press need a little more work then back to SRP, going to S&MA CB on Wed, Going to SSPCB next Tues.
- FEMU-R3 and R1 updates in work

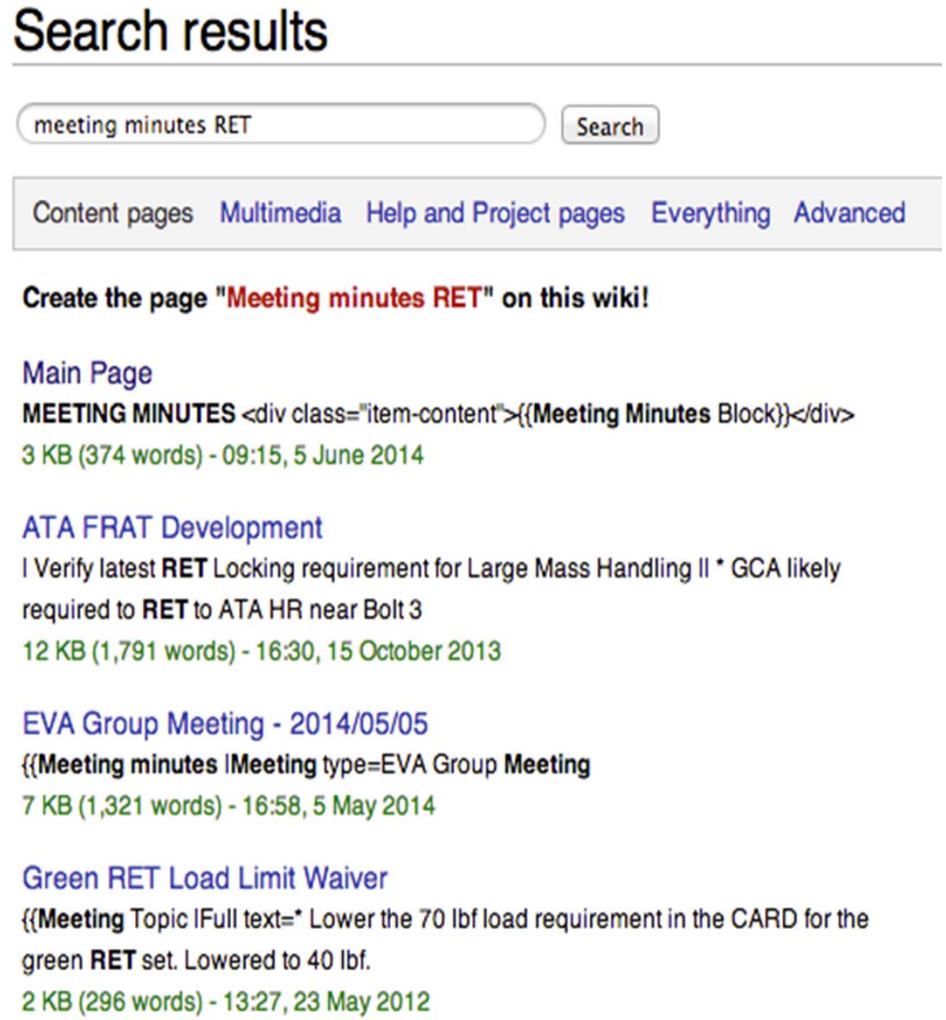
DX Staff

Related Article(s):

- Safety - Don't bike and talk on your cell phone.
- Awards (official ceremonies later, cake today)

Meeting Minutes

- Now meeting minutes
  - Can be entered by anyone
  - Are linkable
  - Are Web accessible
  - Can link to hardware/topic pages
  - Are searchable … ?



Meeting Minutes

We can do better with one additional property:

Related article [[Has type:: Page]]

Related Article

Meeting Topics

Safety Tether Routing

US EVA 26,

Synopsis: *For [[US EVA 26]], the crew will translate along the nadir route of S1 and fairlead their tethers at the top of the [[CETA Spur]].*

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the [[US EVA 26]] page.
```

Topic Title

Related articles

Add Topic

Related Article

EVA Tools FIAR Call - 2014/05/20

RET Fraying

No resolutions were made in this meeting, and it was decided to bring what we had discussed to CCB tomorrow to all the risk-trade discussion to be handled at a higher level prior to Russian EVAs.

Related Article(s): Retractable Equipment Tether, RET Cord Fraying, RET Cord Strength, EVA Tools FIAR Call - 2014/05/13, EVA Tools Panel - 2014/05/20

Meeting Minutes	
Meeting type	EVA Tools FIAR Call
Meeting date	2014/05/20
Start time	13:00
Notes taken by	James Montalvo
Meeting Documents	
No documents	

What load to test to?

The cert load on the High Use RETs is 60 lbs. For the Low Use it's 10 lbs. If possible it makes sense to test to this level, since the RETs are certified to this load, plus a FOS, at end-of-life. Realistically, however, RETs are unlikely to see a maximum load based on the way they are used. As such Safety said between 40 and 60 lbs was acceptable and OneEVA suggested 20 lbs.

Contents [hide]

1 RET Fraying
- 1.1 What load to test to?
- 1.2 How often should the test be performed?
- 1.3 How would we safely perform this test?

2 Torque Multiplier use with multiple turns

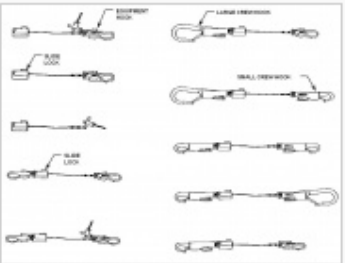
Related Article

Retractable Equipment Tether

(Redirected from RET)

The **Retractable Equipment Tether** (RET) is one of the most commonly used equipment tethers in EVA.

Sm-Sm RET with PIP pin



Different configurations of the Retractable Equipment Tether

Contents [hide]

1 Features
  1.1 Splice versus Larks Knot
2 Usage
  2.1 Pre-EVA Inspection
  2.2 Cord Strength
3 Varieties
  3.1 High-Use RET
  3.2 Low-Use RET
  3.3 Obsolete varieties
4 Anomalies
5 RET Sets
6 References

Features [edit]

The RET has 6 feet of Vectran tether cord on a retractable take-up reel. Free-standing (unmounted) RETs have a higher load limit and RETs mounted in caddies or on equipment have a lower limit. See the RET Cord Strength page for more info. On the end of the reel housing is one equipment hook. The reel housing has a slide lock. In the lock position, the cord will reel out (with force between 0.5 - 3.0 lbs)[*citation needed*], but will not retract. In the unlock position, the cord will automatically retract (with less than 0.5 lb force)[*citation needed*]. On the free end of the cord is a second equipment hook. The hooks are on swivels to allow for rotation. There are several versions of the RET, with different combinations of both equipment and crew EVA Hooks. Some also include a PIP pin.

Related Article

Meeting References | Manifest | EVA References | Applicable OCADs | IVA On-Orbit Activity

PRACA Status

Clear for SpX-4; 2 Open FIARs coming due soon; no change on CAIPs

Date: 3 June 2014

Meeting: EVA Tools Panel

Related articles: SpX-4, Cam Buckle, RET Cord Splice Failure, Retractable Equipment Tether

RET Fraying

Resolution: Perform RET inspections per CHIT 12331. For the fray inspection section of the procedure the crew shall continue to use engineering judgment to determine the integrity of RET cords. No additional testing shall be performed.

Date: 21 May 2014

Meeting: EVA CCB

Related articles: Retractable Equipment Tether, RET Cord Fraying, RET Cord Strength, EVA Tools FIAR Call - 2014/05/20, EVA Tools Panel - 2014/05/20

RET Fraying

No resolutions were made in this meeting, and it was decided to bring what we had discussed to CCB tomorrow to all the risk-trade discussion to be handled at a higher level prior to Russian EVAs.

Date: 20 May 2014

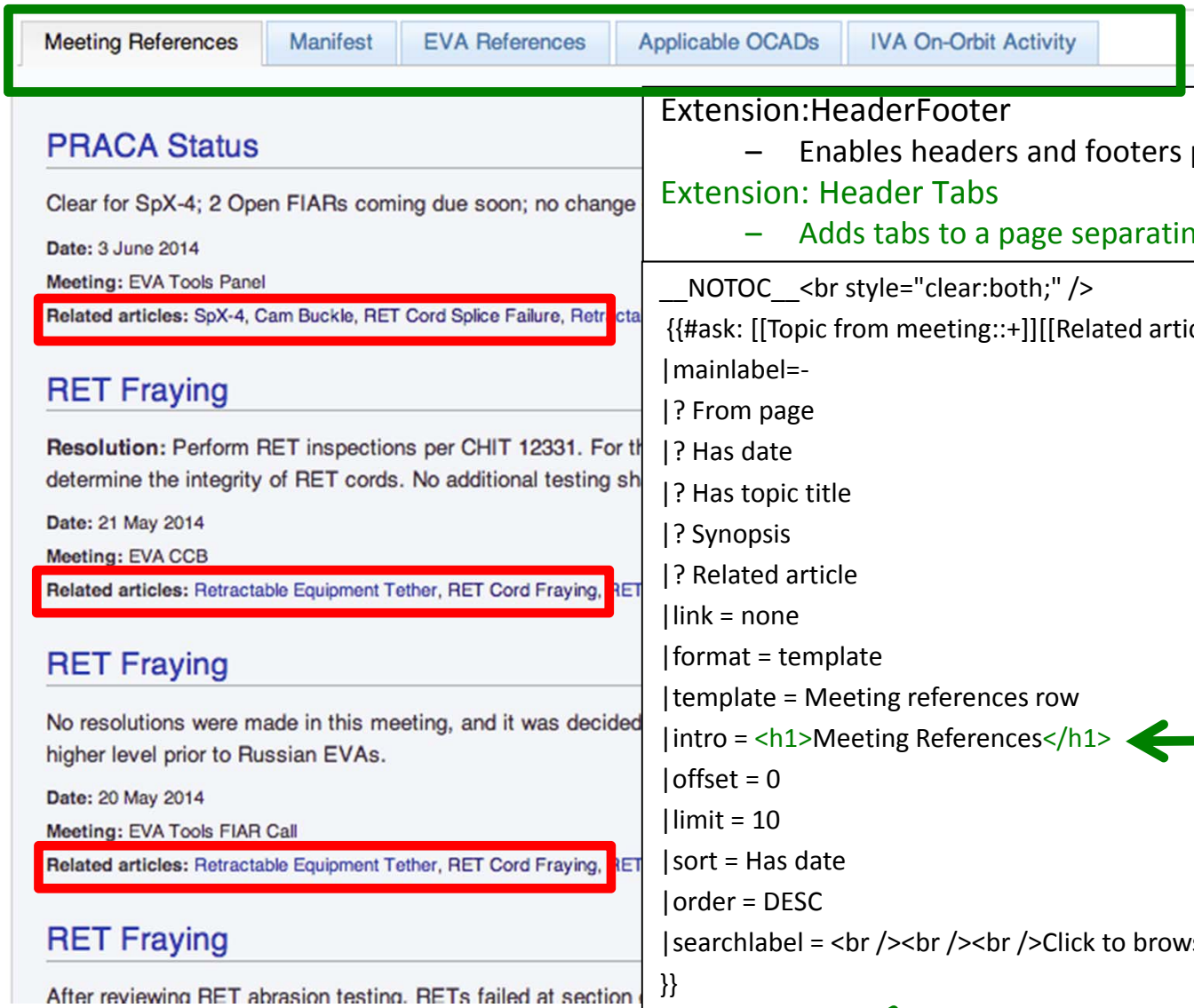
Meeting: EVA Tools FIAR Call

Related articles: Retractable Equipment Tether, RET Cord Fraying, RET Cord Strength, EVA Tools FIAR Call - 2014/05/13, EVA Tools Panel - 2014/05/20

RET Fraying

After reviewing RET abrasion testing, RETs failed at section of cord not showing fraying. Some failed without showing fraying. This invalidates the "check for

Related Article



Extension:HeaderFooter

- Enables headers and footers per namespace

Extension: Header Tabs

- Adds tabs to a page separating top-level sections

```
__NOTOC__<br style="clear:both;" />
 {{#ask: [[Topic from meeting::+]][[Related article::{{PAGENAME}}]]
|mainlabel=-
|? From page
|? Has date
|? Has topic title
|? Synopsis
|? Related article
|link = none
|format = template
|template = Meeting references row
|intro = <h1>Meeting References</h1>
|offset = 0
|limit = 10
|sort = Has date
|order = DESC
|searchlabel = <br /><br /><br />Click to browse earlier meeting references
}}
<headertabs />
```

Related Article

Meeting References | Manifest | EVA References | Applicable OCADs | IVA On-Orbit Activity

53P

Related article(s): Retractable Equipment Tether with PIP Pin, Retractable Equipment Tether

Quantity: 5 ↑Up

S/N: 4054, 4080, 4238, 4241, 4242

Launch Date: 25 November 2013

53P

Related article(s): Retractable Equipment Tether Lg-Sm, Retractable Equipment Tether

Quantity: 8 ↑Up

S/N: 4074, 4249, 4250, 4251, 4253, 4262, 4367, 4368

Launch Date: 25 November 2013

Related Article

53P

Manifest

Item	Part Number	S/Ns	Qty	Up/Down	Notes
Retractable Equipment Tether Sm-Sm, RET	1245	4172, 4239, 4240, 4261, 4263, 4264, 4270, 4369, 4370, 4371, 4374, 4376, 4377, 4379, 4380, 4381	16	↑Up	Sm-Sm RET Rotation (RED Set)[1]
Retractable Equipment Tether with PIP Pin, RET	1246	4054, 4080, 4238, 4241, 4242	5	↑Up	PIP pin RET Rotation (RED Set)[1]
Retractable Equipment Tether Lg-Sm, RET	1243	4074, 4249, 4250, 4251, 4253, 4262, 4367, 4368	8	↑Up	Lg-Sm RET Rotation (RED Set)[1]
CCA	7895	1251, 1252, 1256, 1248	4	↑Up	CB Mastracchio CB Wakata
LCVG	1255	3215, 3216, 3237, 3238	4	↑Up	CB Mastracchio CB Wakata

53P

← Orb-D1 Orb-1 →

Launch date	25 November 2013
Dock/Berth date	25 November 2013
Undock/Unberth date	10 June 2014
Landing date	
Vehicle	Progress
Mission type	ISS Cargo

Crew

Mission Ops Personnel

Related Article

Meeting References | Manifest | EVA References | Applicable OCADs | IVA On-Orbit Activity

Expedition 38 RS EVA 37A

Due to the RET splice issue discovered post US EVA 25 CHIT 11990 mandated a measurement and tug test of the RETs used on RS EVA 37A including mounted RETs. A long term solution will still be required.

Date: 27 January 2014

Related article(s): Retractable Equipment Tether

Expedition 36 US EVA 23

The following tethers were left outside due to the US EVA 23 terminate:

RET sm-sm: SNs 4400, 4401, 4411, 4412

RET Lg-sm: SN 4420

RET w PIP Pin: 4393

Date: 16 July 2013

Related article(s): Retractable Equipment Tether, Retractable Equipment Tether Lg-Sm, Retractable Equipment Tether Sm-Sm, Retractable Equipment Tether with PIP Pin

STS-132/ULF-4 EVA 2

2 Square Scoops, 2 Adjustables, MUT EE, Ballstack, RET sm-sm were used to temp stow old battery between EVA 2 and EVA 3

Date: 19 May 2010

Related article(s): Square Scoop, Ballstack, MUT End Effector, Adjustable Equipment Tether, Retractable Equipment Tether

Related Article

Expedition 38 RS EVA 37A

EVA Synopsis

Hatch open PET start – 08:00 am CST (14:00 GMT)

PET 00:35 Crew has egressed the DC1 and translated to the SM large diameter for the HRC install. About 20 min ahead in timeline.

PET 1:10 Crew has installed the HRC (High Resolution Camera) and mated the electrical connectors. About 20 min ahead of timeline

PET 2:18 Both crew members have wiped the suits and jettisoned the towels.

PET 3:00 Crew has installed the MRC and mated the electrical connectors. About 1 hr ahead in timeline.

PET 4:07 EV1 has retrieved the WIF adapter and is translating back to the DC1. EV2 performed troubleshooting on MRC connectors 19-3 and 19-6. Next he will perform troubleshooting on connector 11-4

PET 4:50 EV1 has retrieved CKK #2-CO cassette from DC1

PET 5:28 EV2 has performed troubleshooting the MRC connector at the SM aft end, wiped his suit, and jettisoned the towel. Crew has completed taking imagery of the HRC/MRC worksites. Next the crew will ingress the DC1.

Crew has ingressed the airlock. Hatch is closed. Final PET 6:08.

The following primary tasks were completed:

- Install High Resolution Camera (HRC) on SM plane IV [УРМ-Д]
- Install Medium Resolution Camera (MRC) on SM plane IV [УРМ-Д]
- Retrieve WIF Adapter from SSRMS LEE B at FGB PDGF
- Retrieve [CKK #2-CO] cassette from DC1

Expedition 38 RS EVA 37A	
Mission	Expedition 38
EVA Title	RS EVA 37A
ISS EVA number	
Country performing EVA	Russia
Start date	27 January 2014 (GMT 27)
Start time	14:00
Duration	6:08
EVA Classification	Scheduled or Historical
Crew	
EV 1	Oleg Kotov
EV 2	Sergey Ryazansky
Mission Ops Personnel	
EVA Lead	John Mularski
EVA TASK	Sandy Moore
EVA HSG	Devan Bolch
Significant ORUs, Tools, Tasks	
RET	Due to the RET splice issue discovered post US EVA 25 CHIT 11990 mandated a measurement and tug test of the RETs used on RS EVA 37A including mounted RETs. A long term solution will still be required.

Related Article

Meeting References | Manifest | EVA References | Applicable OCADs | IVA On-Orbit Activity

ISS OCAD 19222

Hazard: Operational Constraints of Tethers

Control: Tether Life Tracking – The S/N of any tether that is left exposed to the external ISS environment shall be recorded so that it can be tracked in the limited life database.

Related article(s): Adjustable Equipment Tether, Adjustable Equipment Tether Lg-Sm, Adjustable Equipment Tether Sm-Sm, Adjustable Fuse Tether, Long Duration Tie Down Tether, Retractable Equipment Tether, Retractable Equipment Tether Lg-Sm, Retractable Equipment Tether Sm-Sm, Retractable Equipment Tether with PIP Pin, Safety Tether, Tether Extension Assembly, Long Duration Stowage Tether, Tether

ISS OCAD 734

Hazard: Inadvertent Release of equipment

Control: The crew shall observe the outer reach limits of the retractable equipment tether cord, since there is no warning indicator upon approach to these limits. Once the outer limit of the retractable tether is reached, the crew member shall not pull against the stop. RET Cords are 6 feet long.

Related article(s): Retractable Equipment Tether

ISS OCAD 910

Hazard: Operational constraints: Retractable equipment tethers

Control: The crew shall observe the outer reach limits of the retractable equipment tether cord, since there is no warning indicator upon approach to these limits. Once the outer limit of the retractable tether is reached, the crew member shall not pull against the stop.

Related article(s): Retractable Equipment Tether, Retractable Equipment Tether Lg-Sm, Retractable Equipment Tether Sm-Sm, Retractable Equipment Tether with PIP Pin, Crew Lock Bag

Related Article

ISS OCAD 19222

Contents [hide]

1 Hazard
2 Ops Control
3 OCAD Rationale
4 DX Rationale
5 Rationale

ISS OCAD 19222	
OCAD DB	ISS OCAD 19222 / old DB
Applicable Hardware	Adjustable Equipment Tether Retractable Equipment Tether Adjustable Fuse Tether Adjustable Equipment Tether Lg-Sm Adjustable Equipment Tether Sm-Sm
Applicable Categories	Tether
Applicable Locations	
Applicable EVA Group	Task
Is Studied By	
Approval Status	Approved
Implementation	
Flight Rule	
Procedure	
Training	

Hazard

Operational Constraints of Tethers

Ops Control

Tether Life Tracking – The S/N of any tether that is left exposed to the external ISS environment shall be recorded so that it can be tracked in the limited life database.

OCAD Rationale

Soft goods loose strength after exposure to environment over time and structurally fail

More Semantic Linking

ISS OCAD 122405

Contents [hide]

1 Hazard
2 Ops Control
3 DX Rationale
4 Rationale

Hazard

A grounded conductive object contacts an inadvertent energized surface resulting in arcing/sparking which produces molten metal. The molten metal may cause "burn-thru" of the EMU, and/or damage to Visiting Vehicle and/or ISS hardware.

Ops Control

A 1 ft keep-out zone must be maintained around the blind-mate electrical connectors on empty PFRAM sites. If EVA tasks make this keep-out zone impractical, then one upstream verifiable inhibit to the PFRAM power must be in place.

DX Rationale

ISS OCAD 122405	
OCAD DB	ISS OCAD 122405 / old DB
Applicable Hardware	FRAM PFRAM FRAM FGB PDGF
Applicable Categories	
Applicable Locations	ESP-1 ESP-2 ESP-3 ELC-2 ELC-3 ELC-4 ELC-1 PMA 2 MBS Columbus
Applicable EVA Group	Task
Is Studied By	
Approval Status	Approved
Attachment	Hot Connector List
Implementation	
Flight Rule	

User Queries

Run query: OCAD Query

```
You may select multiple items in each category.
<cntl>-click or <shift>-click to select multiple items.
<cntl>-click again to deselect an item.

*Ubiquitous = Applicable everywhere

The more items you select, the longer your query will take.
```

Applicable Location:

- Dragon
- Equipment Lock (internal)
- ExPRESS Logistics Carrier 1
- ExPRESS Logistics Carrier 2
- ExPRESS Logistics Carrier 3
- ExPRESS Logistics Carrier 4
- External Stowage Platform 1
- External Stowage Platform 2
- External Stowage Platform 3
- FGB
- H-II Transfer Vehicle
- ISS Joint Airlock (external)
- ISS Joint Airlock (internal)
- JLP
- Japanese Experiment Module
- Japanese Experiment Module Exposed Facility
- Lab
- MRM 1
- MRM 2
- Mobile Base System
- Mobile Tranporter
- Node 1
- Node 2
- Node 3

Applicable Hardware:

- Extravehicular Mobility Unit
- Extravehicular Visor Assembly
- FGB Antennas
- FGB PDGF
- Flex Hose Rotary Coupler
- Flight Releasable Attachment Mechanism
- Flight Releasable Grapple Fixture
- Floating Potential Measurement Unit
- Fluid QD Anti-Kick Back Tool
- Fluid QD Bail Drive Lever
- Fluid QD Button Depress Tool
- Fluid QD Tool Bag
- Fluid QD Tool Bag 1
- Fluid QD Tool Bag 2
- Fluid Quick Disconnect
- GLADIS
- GLIMS
- GPS Antenna
- GTS
- General Purpose Cutter
- Glove
- Ground Radar
- H-Bolt Anti-Rotation Device
- H-II Transfer Vehicle

Applicable Category:

- *Generic
- Allen Drivers
- Bag
- Cable
- Connector
- Driver
- EVA Hook
- Electrical Connector
- Flex Hose
- Floating Debris
- **Foot Restraint**
- Grapple Fixture
- Hardware with ARD in MSF
- MMOD Strike
- Panels
- QD Vent Tool
- Russian Hooks
- Russian Tethers
- Safety Tether
- Socket
- Tether
- Tool Board
- Tool Box
- Touch Temperature

User Queries

Run query: OCAD Query

OCAD Query results for the following criteria:

Location: ExPRESS Logistics Carrier 1, External Stowage Platform 1, Lab
Hardware: Flight Releasable Attachment Mechanism
Category: Foot Restraint

	Hazard	Control	Applicable Hardware	Applicable Category	Applicable Location
ISS OCAD 102356	Crew or Vehicle Exposure/ISS Elements Exposure to Class 4 LASER Emissions	Before EVA egress, Robotic Arms Operations within the field of regard, or any Visiting Vehicle activities, the laser system on OPALS must be inhibited from lasing by verifying (1) the ELC-1 ExPCA-5 5V Discrete Line controlled relay is OPEN, (2) the OPALS 28V Laser Power Relay is OPEN, and (3) the OPALS laser inhibits and the Gimbal Electrical Limit Switch relay is OPEN.	Optical Payload for Lasercomm Science		ExPRESS Logistics Carrier 1 Space Station Remote Manipulator System
ISS OCAD 102360	Crew or Vehicle Exposure/ISS Elements Exposure to Class 4 LASER Emissions	First activation after FRAM installation onto ELC not performed during EVA, Robotic Arms activities within the field of regard, or any Visiting Vehicle activities.	Optical Payload for Lasercomm Science		ExPRESS Logistics Carrier 1 Space Station Remote Manipulator System
ISS OCAD 102402	EVA Hazards on STP-H4	GLADIS AIS and Data-X antennas and ISE2.0 FireStation VLF antennas, GLADIS PEEK antenna bracket, SWATS door catches and SWATS plumbing do not meet kickload requirements and could create a sharp edge if kicked; Shatterable materials release debris that could damage or contaminate the EMU or nearby ISS systems; Spaces between GLADIS AIS antenna, PEEK bracket, SWATS plumbing, and the open SWATS door are within the 0.5 inch to 1.4 inch limits of entrapment hazard; Improper	STP-H4 GLADIS		ExPRESS Logistics Carrier 1

Exposure

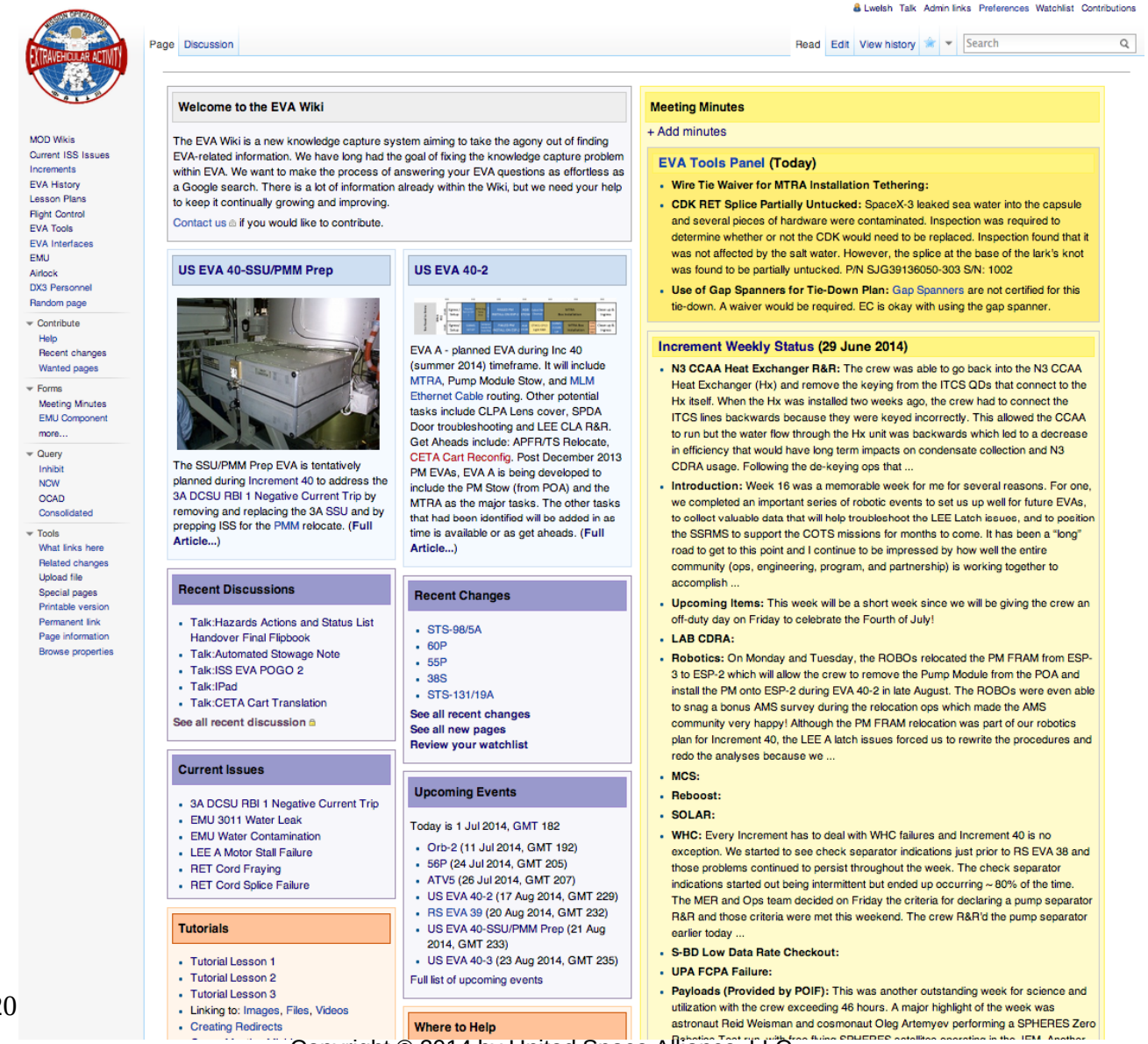
- Individual pages are linked
  - [[wiki links]]
  - Semantic queries (inline, infobox, and footer)
- User queries
  - Somewhat exposes users to unfamiliar pages, but limited in scope

How do we make sure our users are aware of pages they might be interested in?

Warrens & Plazas

- Discussion at Houston wiki summit with Brandon Harris and Philippe Beaudette (Wikimedia Foundation)
- Each wiki page is maintained by a small community
- Even with Semantic sharing, there are disconnects
- How do we connect these communities?

The Main Page Plaza



Lwelsh Talk Admin links Preferences Watchlist Contributions

Page Discussion Read Edit View history Search

MOD Wikis
Current ISS Issues
Increments
EVA History
Lesson Plans
Flight Control
EVA Tools
EVA Interfaces
EMU
Airlock
DX3 Personnel
Random page
Contribute
Help
Recent changes
Wanted pages
Forms
Meeting Minutes
EMU Component
more...
Query
Inhibit
NCW
OCAD
Consolidated
Tools
What links here
Related changes
Upload file
Special pages
Printable version
Permanent link
Page information
Browse properties

Welcome to the EVA Wiki

The EVA Wiki is a new knowledge capture system aiming to take the agony out of finding EVA-related information. We have long had the goal of fixing the knowledge capture problem within EVA. We want to make the process of answering your EVA questions as effortless as a Google search. There is a lot of information already within the Wiki, but we need your help to keep it continually growing and improving.

Contact us if you would like to contribute.

US EVA 40-SSU/PMM Prep

The SSU/PMM Prep EVA is tentatively planned during Increment 40 to address the 3A DCSU RBI 1 Negative Current Trip by removing and replacing the 3A SSU and by prepping ISS for the PMM relocate. **(Full Article...)**

US EVA 40-2

EVA A - planned EVA during Inc 40 (summer 2014) timeframe. It will include MTRA, Pump Module Stow, and MLM Ethernet Cable routing. Other potential tasks include CLPA Lens cover, SPDA Door troubleshooting and LEE CLA R&R. Get Aheads include: APFR/TS Relocate, CETA Cart Reconfig. Post December 2013 PM EVAs, EVA A is being developed to include the PM Stow (from POA) and the MTRA as the major tasks. The other tasks that had been identified will be added in as time is available or as get aheads. **(Full Article...)**

Recent Discussions

- Talk:Hazards Actions and Status List Handover Final Flipbook
- Talk:Automated Stowage Note
- Talk:ISS EVA POGO 2
- Talk:IPad
- Talk:CETA Cart Translation

See all recent discussion

Recent Changes

- STS-98/5A
- 60P
- 55P
- 38S
- STS-131/19A

See all recent changes
See all new pages
Review your watchlist

Current Issues

- 3A DCSU RBI 1 Negative Current Trip
- EMU 3011 Water Leak
- EMU Water Contamination
- LEE A Motor Stall Failure
- RET Cord Fraying
- RET Cord Splice Failure

Upcoming Events

Today is 1 Jul 2014, GMT 182

- Orb-2 (11 Jul 2014, GMT 192)
- 56P (24 Jul 2014, GMT 205)
- ATV5 (26 Jul 2014, GMT 207)
- US EVA 40-2 (17 Aug 2014, GMT 229)
- RS EVA 39 (20 Aug 2014, GMT 232)
- US EVA 40-SSU/PMM Prep (21 Aug 2014, GMT 233)
- US EVA 40-3 (23 Aug 2014, GMT 235)

Full list of upcoming events

Tutorials

- Tutorial Lesson 1
- Tutorial Lesson 2
- Tutorial Lesson 3
- Linking to: Images, Files, Videos
- Creating Redirects

Where to Help

Meeting Minutes

+ Add minutes

EVA Tools Panel (Today)

- **Wire Tie Waiver for MTRA Installation Tethering:**
- **CDK RET Splice Partially Untucked:** SpaceX-3 leaked sea water into the capsule and several pieces of hardware were contaminated. Inspection was required to determine whether or not the CDK would need to be replaced. Inspection found that it was not affected by the salt water. However, the splice at the base of the lark's knot was found to be partially untucked. P/N SJG39136050-303 S/N: 1002
- **Use of Gap Spanners for Tie-Down Plan:** Gap Spanners are not certified for this tie-down. A waiver would be required. EC is okay with using the gap spanner.

Increment Weekly Status (29 June 2014)

- **N3 CCAA Heat Exchanger R&R:** The crew was able to go back into the N3 CCAA Heat Exchanger (Hx) and remove the keying from the ITCS QDs that connect to the Hx itself. When the Hx was installed two weeks ago, the crew had to connect the ITCS lines backwards because they were keyed incorrectly. This allowed the CCAA to run but the water flow through the Hx unit was backwards which led to a decrease in efficiency that would have long term impacts on condensate collection and N3 CDRA usage. Following the de-keying ops that ...
- **Introduction:** Week 16 was a memorable week for me for several reasons. For one, we completed an important series of robotic events to set us up well for future EVAs, to collect valuable data that will help troubleshoot the LEE Latch issues, and to position the SSRMS to support the COTS missions for months to come. It has been a "long" road to get to this point and I continue to be impressed by how well the entire community (ops, engineering, program, and partnership) is working together to accomplish ...
- **Upcoming Items:** This week will be a short week since we will be giving the crew an off-duty day on Friday to celebrate the Fourth of July!
- **LAB CDRA:**
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- **Reboost:**
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- **WHC:** Every Increment has to deal with WHC failures and Increment 40 is no exception. We started to see check separator indications just prior to RS EVA 38 and those problems continued to persist throughout the week. The check separator indications started out being intermittent but ended up occurring ~80% of the time. The MER and Ops team decided on Friday the criteria for declaring a pump separator R&R and those criteria were met this weekend. The crew R&R'd the pump separator earlier today ...
- **S-BD Low Data Rate Checkout:**
- **UPA FCPA Failure:**
- **Payloads (Provided by POIF):** This was another outstanding week for science and utilization with the crew exceeding 46 hours. A major highlight of the week was astronaut Reid Weisman and cosmonaut Oleg Artemyev performing a SPHERES Zero

The Main Page Plaza

- Masonry Main Page
  - Masonry Javascript/CSS packed into an extension for MW
  - Provides auto-sized blocks based on content and window size
- Meeting Minutes is the focus
- Additional blocks provide relevant articles and queries

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Meeting Minutes

+ Add minutes

EVA Tools Panel (Today)

- **Wire Tie Waiver for MTRA Installation Tethering:**
- **CDK RET Splice Partially Untucked:** SpaceX-3 leaked sea water into the capsule and several pieces of hardware were contaminated. Inspection was required to determine whether or not the CDK would need to be replaced. Inspection found that it was not affected by the salt water. However, the splice at the base of the lark's knot was found to be partially untucked. P/N SJG39136050-303 S/N: 1002
- **Use of Gap Spanners for Tie-Down Plan:** Gap Spanners are not certified for this tie-down. A waiver would be required. EC is okay with using the gap spanner.

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- Talk:Automated Stowage Note
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See all recent discussion

Recent Changes

- STS-98/5A
- 60P
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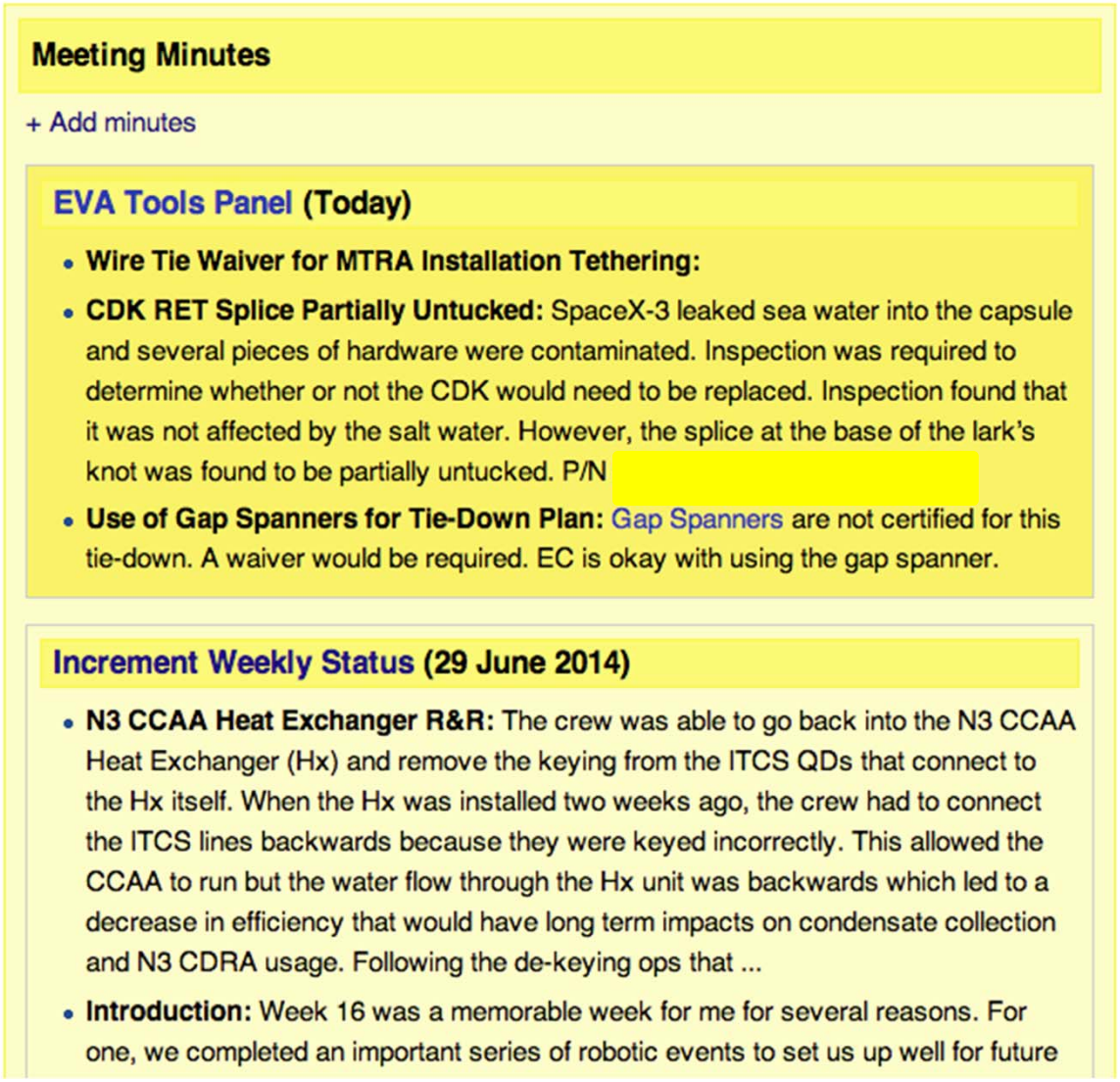
The Main Page Plaza

Meeting Minutes

- Link to form for new minutes
- Title linking to full minutes
- Topics and synopses



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+ Add minutes

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The Main Page Plaza

Featured Article

- Title linking to article
- Primary image
- Overview

Current Issues

- 3A DCSU RBI 1 Negative Current Trip
- EMU 3011 Water Leak
- EMU Water Contamination
- LEE A Motor Stall Failure
- RET Cord Fraying
- RET Cord Splice Failure

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The Main Page Plaza

Upcoming Events

- Encourages users to contribute to events they are supporting
- Helps us ensure we are tracking the correct event dates (they change A LOT)
- Currently only vehicles and missions. Eventually will include training and on-orbit activities.

The Main Page Plaza

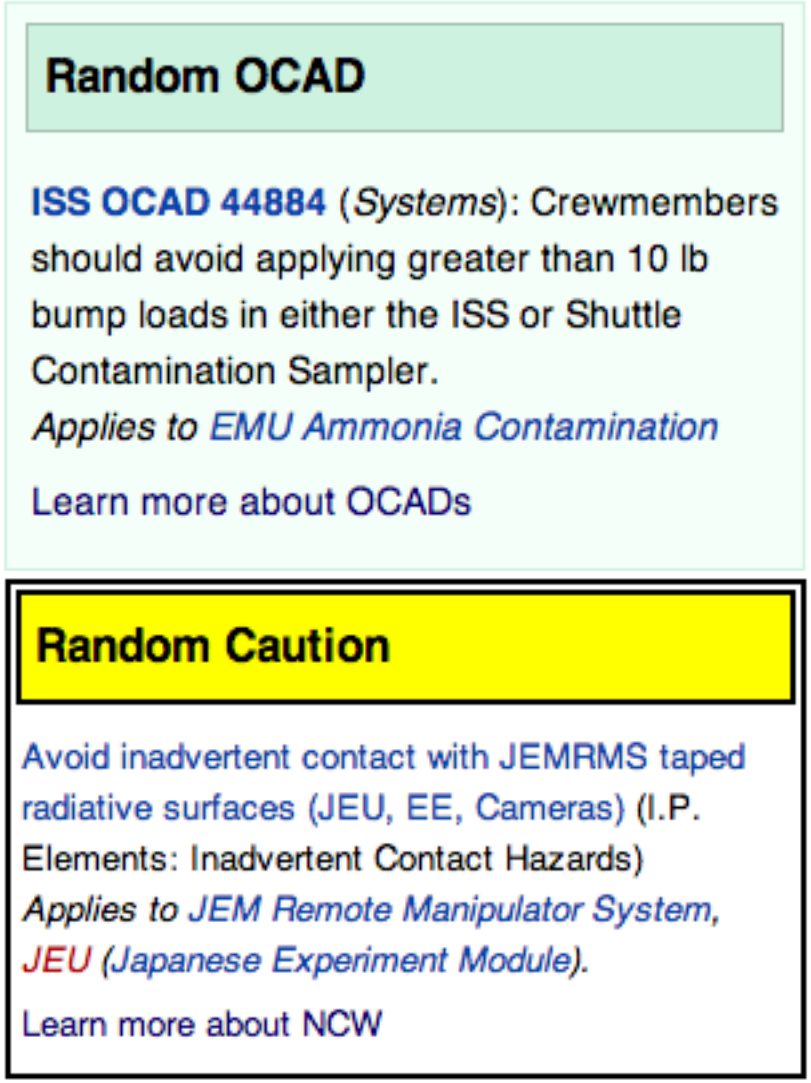
Recent Discussions and Changes

- Helpful for new users not familiar with “Recent Changes”
- Highlights discussion

The Main Page Plaza

Proficiency Training

- Currently a passive system
- Users unknowingly get additional proficiency training and review our data
- In the future, we could track click-through of these types of boxes for proficiency training



The Main Page Plaza

Morning Routine

- Coffee
- Meeting Minutes
- Recent changes
- Recent discussion
- Watchlist
- Email (yes, still, but less)
  - Now more focused on discussions and less focused on “documenting” technical info

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The Future

- Future concept of expanding engagement
  - Connect warrens
  - User watches one page, but does not watch related page (determined by Property:Related article, wiki links, common contributors, etc.)
  - Main Page blocks customized by username, expiration date, etc.

Semantic MediaWiki Conference

Fall 2014

Approved Revs v1.0

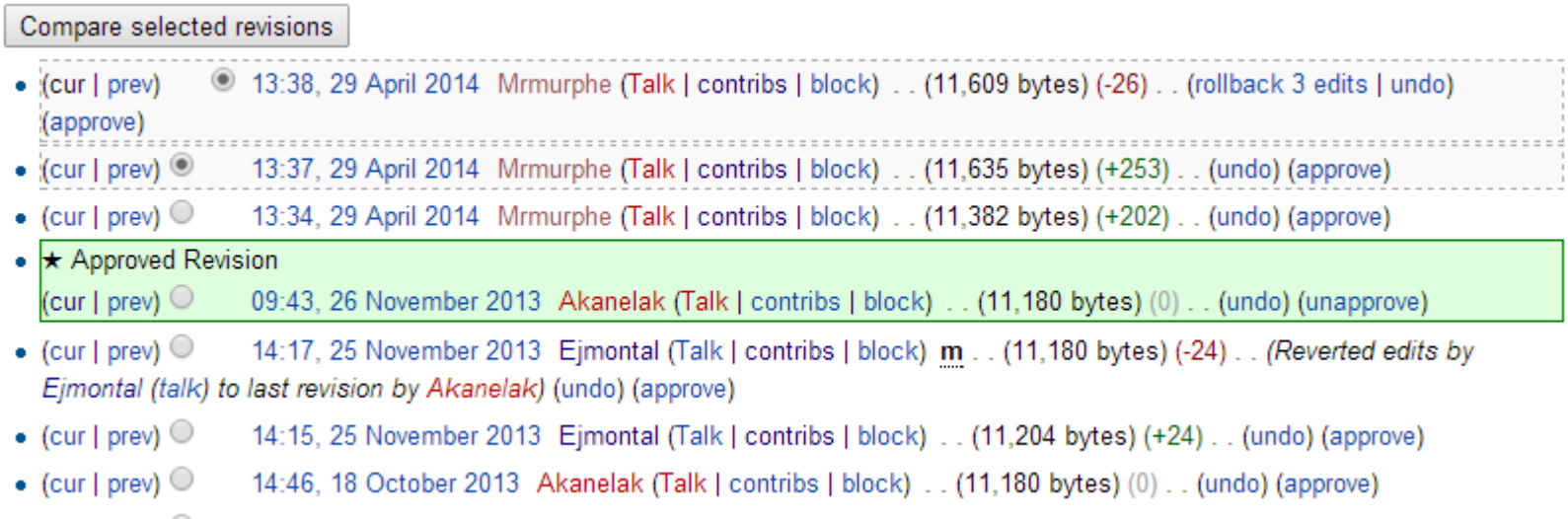
Fine-tuned revision approval

James Montalvo, *NASA Flight Operations*

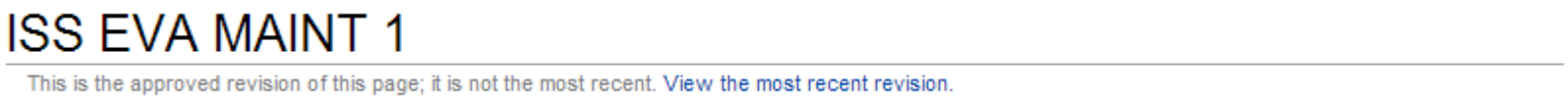
United Space Alliance

What is Approved Revs?

- An extension allowing certain users to mark a revision as “approved”



- The approved revision is shown when people view the page



Approved Revs v0.7

- Approved Revs v0.7 allowed user groups to be given the "approverevisions" permission in LocalSettings.php

```
$wgGroupPermissions['sysop']['approverevisions'] = true;
$wgGroupPermissions['editors']['approverevisions'] = true;
```

- Only these groups have the ability to determine what is the approved revision of a page

Approved Revs v0.7

- Which pages require approval is set at the namespace level, also in LocalSettings.php

```
$egApprovedRevsNamespaces = array(
  NS_MAIN, NS_USER, NS_TEMPLATE,
  NS_HELP, NS_PROJECT
);
```

- Individual pages can be made approvable by adding the magic word __APPR0VEDREVS__

v1.0 Permissions

```
$egApprovedRevsPermissions = array (

    'Namespace Permissions' => array (
        NS_MAIN     => array( 'group' => 'sysop' ),
        NS_USER     => array( 'group' => 'sysop' ),
        NS_TEMPLATE => array( 'group' => 'sysop' ),
        NS_HELP     => array( 'group' => 'sysop' ),
        NS_PROJECT  => array( 'group' => 'sysop' ),
    )

);
```

Basic Permissions

```
$egApprovedRevsPermissions = array (
    'Namespace Permissions' => array (
        NS_HELP => array(
            'group' => 'sysop',
            'group' => 'Reviewers',
        ),
        NS_TEMPLATE => array(
            'group' => 'sysop'
        ),
        NS_BLOG => array(
            'group' => 'sysop',
            'creator' => true
        )
```

- Specify namespaces requiring revisions
- Specify who can edit those namespaces
- A lot of **duplication** re-writing `'group' => 'sysop'`

Simplified with “All Pages”

Approved by *Reviewers* and *sysops*

```
$egApprovedRevsPermissions = array (

    ‘All Pages' => array ('group' => ‘sysop‘ ),

    'Namespace Permissions' => array (
        NS_HELP => array( 'group' => 'Reviewers‘ ),
        NS_TEMPLATE => array(),
        NS_BLOG => array( 'creator' => true )
    )

);
```

Approved by *sysops*

Approved by *sysops* and the user who created the page

The User Namespace

```
$egApprovedRevsPermissions = array (

    'All Pages' => array ('group' => 'sysop' ),

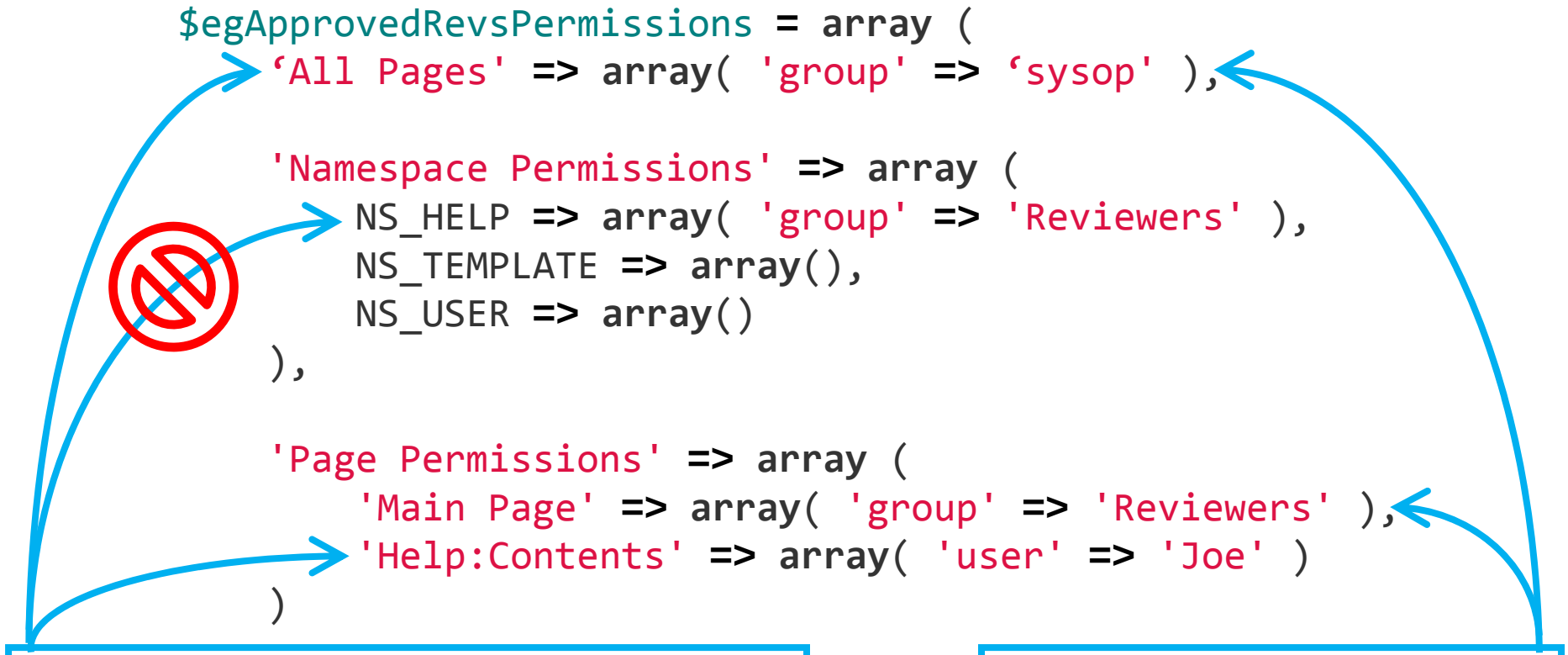
    'Namespace Permissions' => array (
        NS_HELP => array( 'group' => 'Reviewers' ),
        NS_USER => array()
    )
);
```

User namespace appears to be only approvable by sysops, but…

The user namespace is **special**. If user pages are approvable then each user is **able to approve their own pages**

- Includes subpages
- `$egApprovedRevsSelfOwnedNamespaces` no longer has any effect

Page Permissions



Help:Contents is **only approvable** by User:Joe and sysops

Main Page is approvable by Reviewers and sysops

Page permissions override namespace permissions, unless…

Don’t Override Permissions

```
$egApprovedRevsPermissions = array (
    'All Pages' => array( 'group' => 'sysop' ),
    'Namespace Permissions' => array (
        NS_HELP => array( 'group' => 'Reviewers' ),
        NS_TEMPLATE => array(),
        NS_USER => array()
    ),
    'Page Permissions' => array (
        'Main Page' => array( 'group' => 'Reviewers' ),
        'Help:Contents' => array(
            'user' => 'Joe',
            'override' => true
        )
    )
```

With the plus sign in front,
Help:Contents is approvable by
User:Joe, *Reviewers* and *sysops*

Category Permissions

```
$egApprovedRevsPermissions = array (

'All Pages' => array ( 'group' => 'sysop' ),

'Namespace Permissions' => array (
    NS_TEMPLATE => array(),
    NS_USER => array()
),

'Category Permissions' => array (
    'Approval Required' => array()
),

'Page Permissions' => array (
    'Main Page' => array()
)
```

Pages with [[Category:Approval Required]] are now approvable by sysops

Assigning Permissions by Property

```
$egApprovedRevsPermissions = array (

    'All Pages' => array ( 'group' => 'sysop' ),

    'Namespace Permissions' => array (
        NS_TEMPLATE => array(),
        NS_USER => array()
    ),

    'Category Permissions' => array (
        'Approval Required' => array( 'property' => 'Is owner' )
    ),

    'Page Permissions' => array (
        'Main Page' => array()
    )

);
```

Adding **[[Is owner::User:Sarah]]** to an **Approval Required** page allows *User:Sarah* to approve that page

Can user add self as approver?

Example: *User:Vandal* goes to the "Rome" page and adds:

[[Is owner::User:Vandal]]

Question: Can *User:Vandal* approve the page?

Answer: No*

* provided there is already an approved revision.

Same for categories

Create Templates!

ISS EVA MAINT 1

This is the approved revision of this page; it is not the most recent. View the most recent revision.

Revision controlled page: You may edit this page, but only certain users can approve changes to be viewed by all. See Special:ApprovedRevs for lists of approved and approvable pages. This page can be approved by:

- People in group(s): Manager, sysop
- James Montalvo, Daren Welsh

This is a run for crewmembers in the ISS EVA Task Maintenance flow. The focus of this run is PFCS R&R, ETVCG R&R and RPCM retrieval from a CTC.

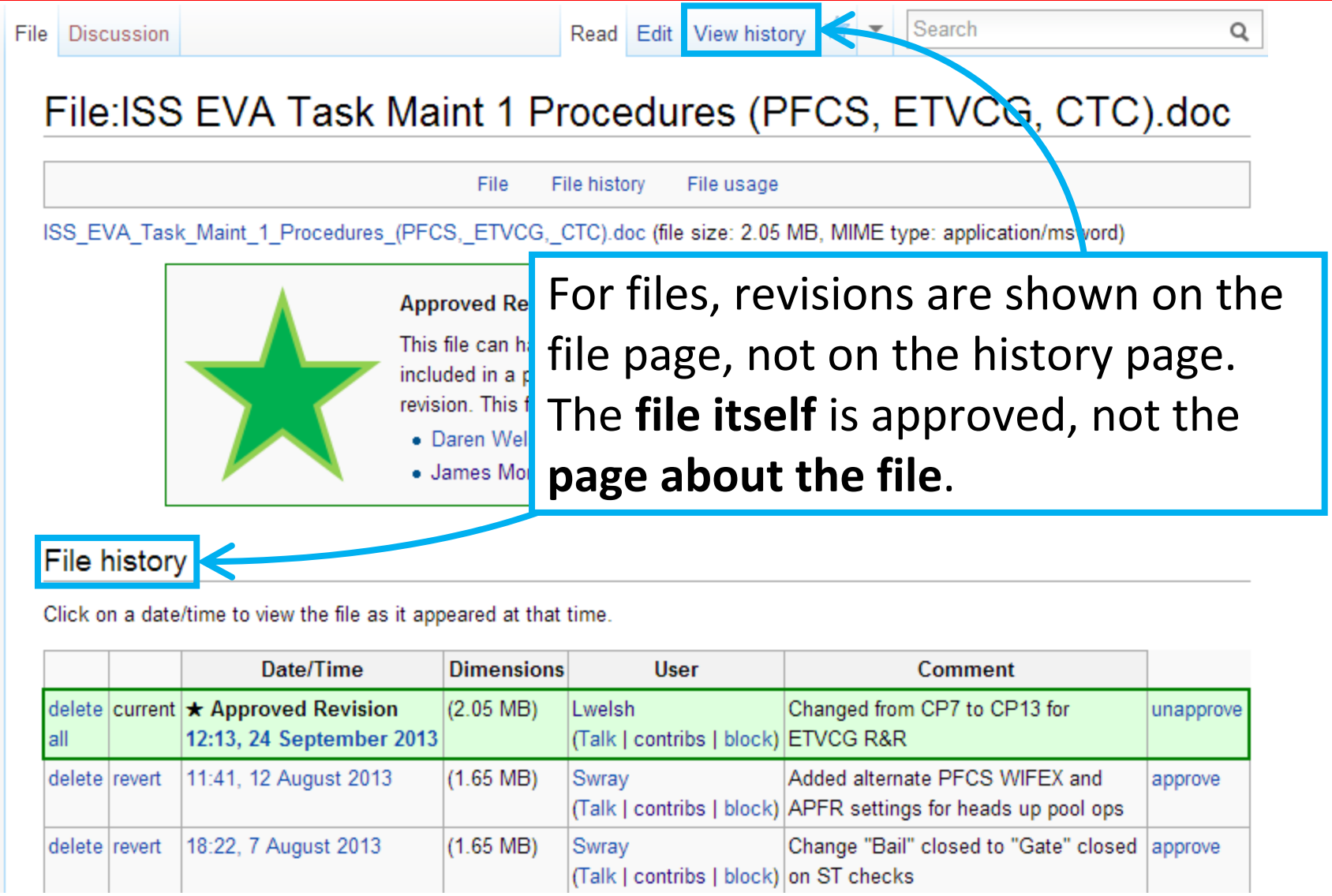
Contents [hide]

1 Objectives
2 Briefing of Crew Expectations for Every Maint Run
  2.1 Prior to NBL (at 1G)
  2.2 Morning of NBL

ISS EVA MAINT 1	
Lesson Plan Owner(s)	• James Montalvo • Daren Welsh
Alias	Maint 1
Lesson Code	No Lesson Code
Training Flow	ISS EVA Crew Task Flow Class #5
Water Time	6 hours

```
{{Approval Required
  | Approvers = James Montalvo, Daren Welsh
}}
```

File Approvals



Approved images display on pages

		Date/Time	Thumbnail	Dimensions	User	Comment	
delete	revert	23:45, 27 June 2014		800 × 529 (142 KB)	Jamesmontalvo3 (Talk | contribs | block)		approve
delete	revert	★ **Approved Revision 23:45, 27 June 2014**		800 × 529 (142 KB)	Jamesmontalvo3 (Talk | contribs | block)		unapprove
delete	revert	23:44, 27 June 201					

Preview

Remember that this is only a preview. Your changes have not yet been saved! → Go to editing area

Media links like this one link to the approved revision

```
[[File:Astronaut Sign.jpg|300x300px]]

Media links like [[Media:Astronaut Sign.jpg|this one]] link to the approved revision
```

Special:ApprovedFiles

Approved files

See also: Approved pages

View list of:

- **Files whose approved revision is not their latest**
- Unapproved files
- All files with an approved revision
- Files with invalid approvals

Showing below up to **1** result starting with #**1**.

View (previous 20 | next 20) (20 | 50 | 100 | 250 | 500)

1. File:ISS EVA Task Maint 4 Procedure.docx (*revision fv5fxvuq*, approved by Ejmontal on 28 July 2014 at 08:58)

Special:ApprovedPages

Approved pages

See also: Approved files

View list of:

- Pages whose approved revision is not their latest
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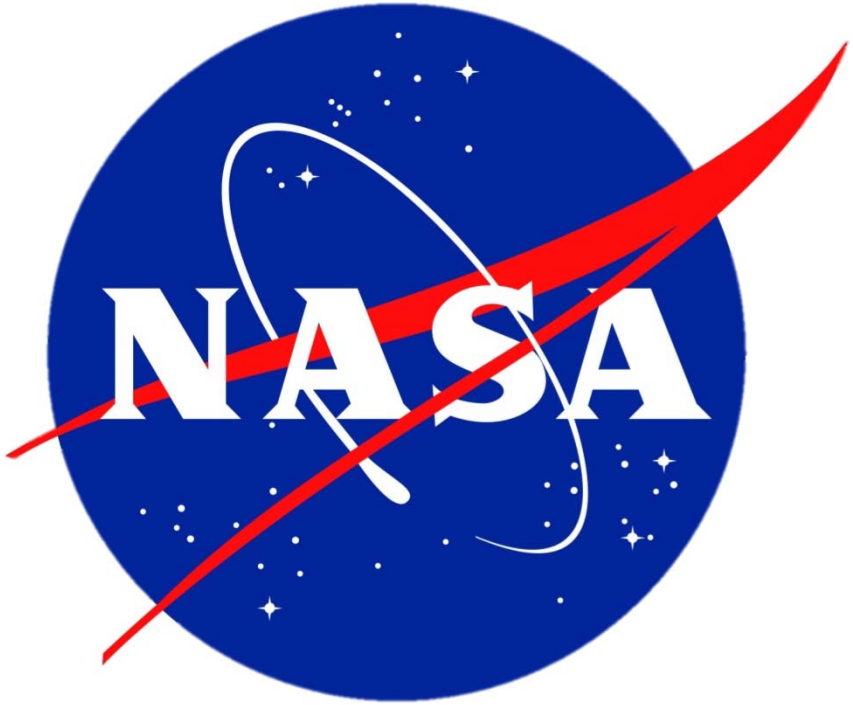
Showing below up to **20** results starting with #**1**.

View (previous 20 | next 20) (20 | 50 | 100 | 250 | 500)

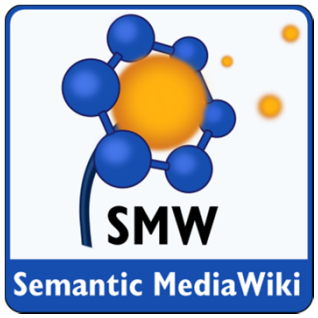
1. EVA HDW-REV 71027 05 September 2013
2. EVA SKILLS 21027 17 June 2013
3. EVA Skills 1

Future Development



HISTORY OF THE EVA WIKI

Presented by: Scott Wray



Extravehicular Activities
Instructor & Flight Controller
NASA Johnsons Space Center

SMW Fall Summit

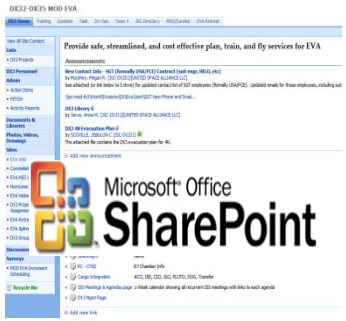
3 Oct 2014

WHAT WE DO

- Flight Operations
  - –Plan, Train, Fly
- Extravehicular Activity (EVA)
  - – NASA Speak for “SPACEWALK”

The “Old Way”

- Multiple file type/sources
  - Lead to conflicting information
  - Poor revision control
  - Updates required multiple files to be revised
  - File deletion or override was not uncommon
  - Which file type/source was most trusted?

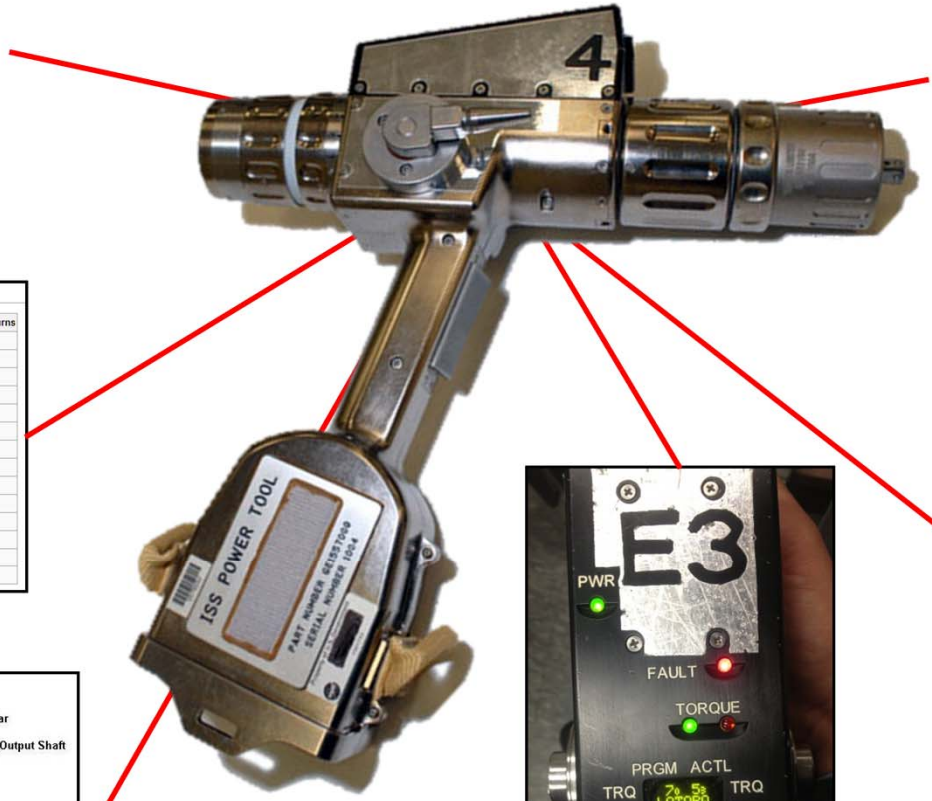


The “Wiki Way”

- A single source for information
- Outside databases and sources can be linked from wiki pages
- Better revision control
- Not just file searchable, but content searchable
- Semantic

Pistol Grip Tool (PGT)

Part #: ABC12345
Mass: 10.6 lbs.
Length: 15 in.
Width: 5.3 in.
Height: 14 in.

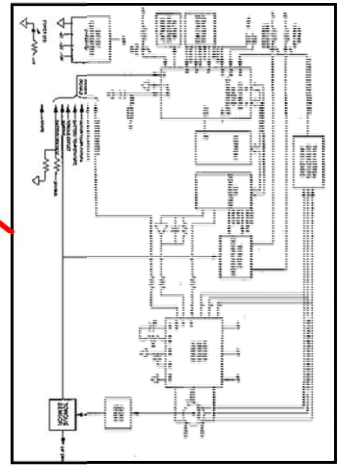


SOCKETS

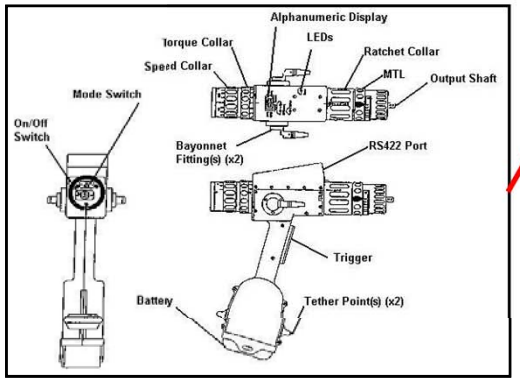
Torque Settings [edit]

Setting	Torque Setpoint(ft-lb)	Torque Window (ft-lb)	Torque Threshold (ft-lb)	Turns
A1	2.5	±1.0	1.0	–
A2	3.8	±1.0	1.0	–
A3	4.8	±1.0	1.0	–
A4	6.3	±1.0	1.0	–
A5	7.0	±1.0	1.0	–
A6	8.3	±1.0	1.0	–
A7	9.2	±1.0	1.0	–
B1	12.0	±1.0	1.0	–
B2	16.0	±1.2	1.0	–
B3	18.4	±1.7	1.0	–
B4	19.4	±1.9	1.0	–
B5	22.0	±2.0	1.0	–
B6	24.0	±2.0	1.0	–
B7	25.5	±2.0	1.0	–

TORQUE DATA



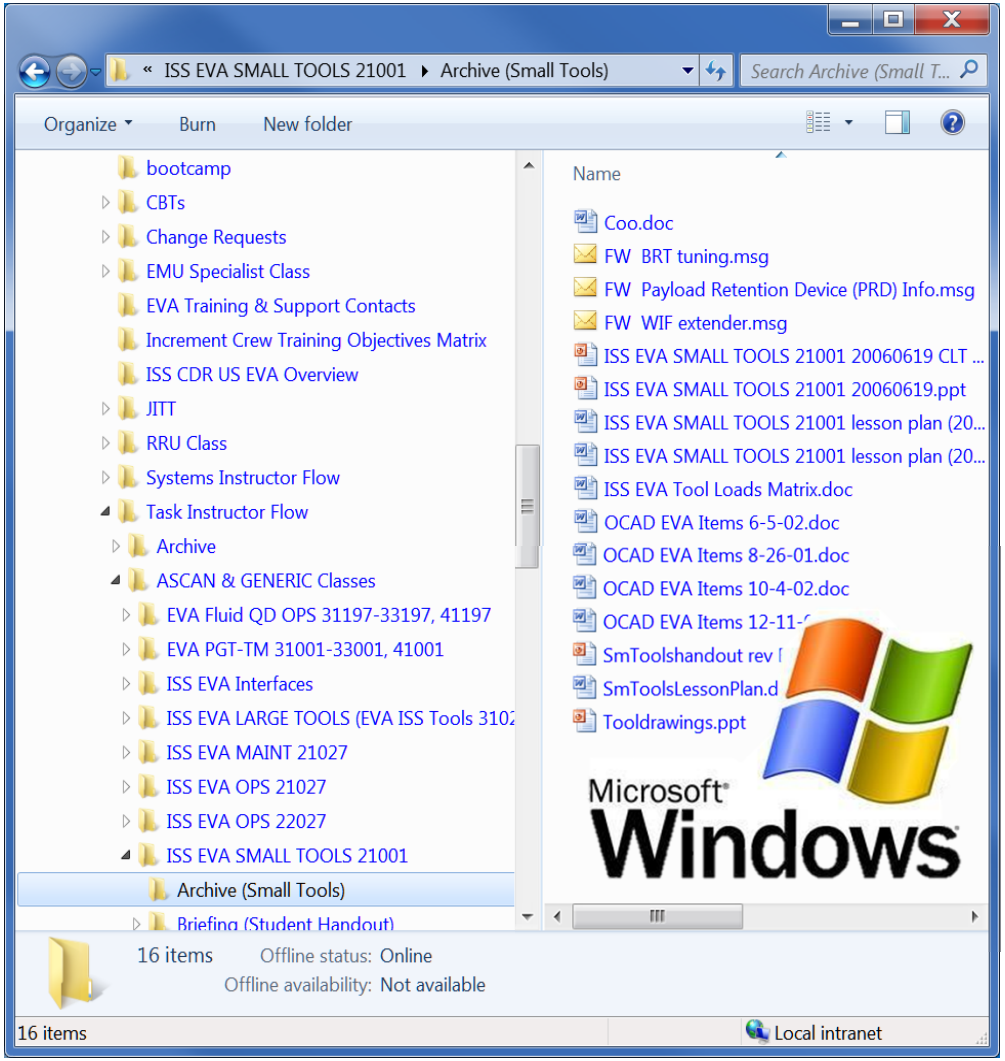
SCHEMATICS

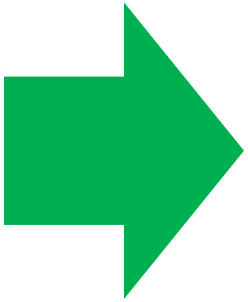


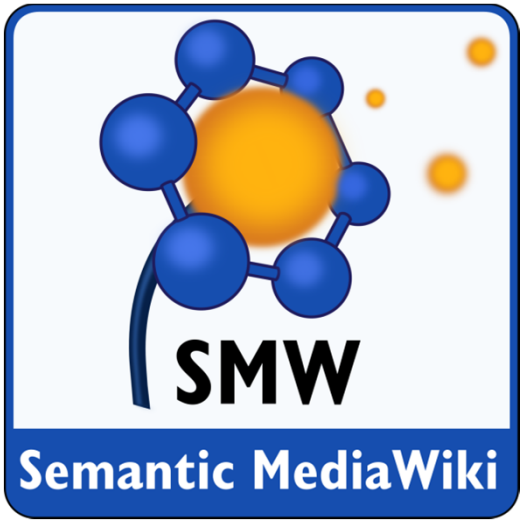
DRAWINGS

ANOMALIES

Culture Shift







Proof of Concept

Image Source: http://fedscoop.com/

Proof of Concept

- Added content to wiki through annual proficiency training
  - Allowed for minimal duplication of work
- Installed Semantic
  - Shed light on deficiencies in current knowledge management system
- A demo was presented to management, once **critical mass** was achieved

Hurdles

- There is a double standard for wikis
  - Wiki makes info easier to access/edit/share information
    - Initially this was viewed as a negative, not a positive by management
    - Can the wiki be trusted?
  - Sharepoint/word/PDF/ documents were just as vulnerable to revisions or access control issues

Image source: tweakyourbiz.com

Demonstrating Value

- Wiki = One stop shop for information
- Helps reveal gaps in knowledge management
- Promotes group ownership of knowledge
  - "Our Wiki"

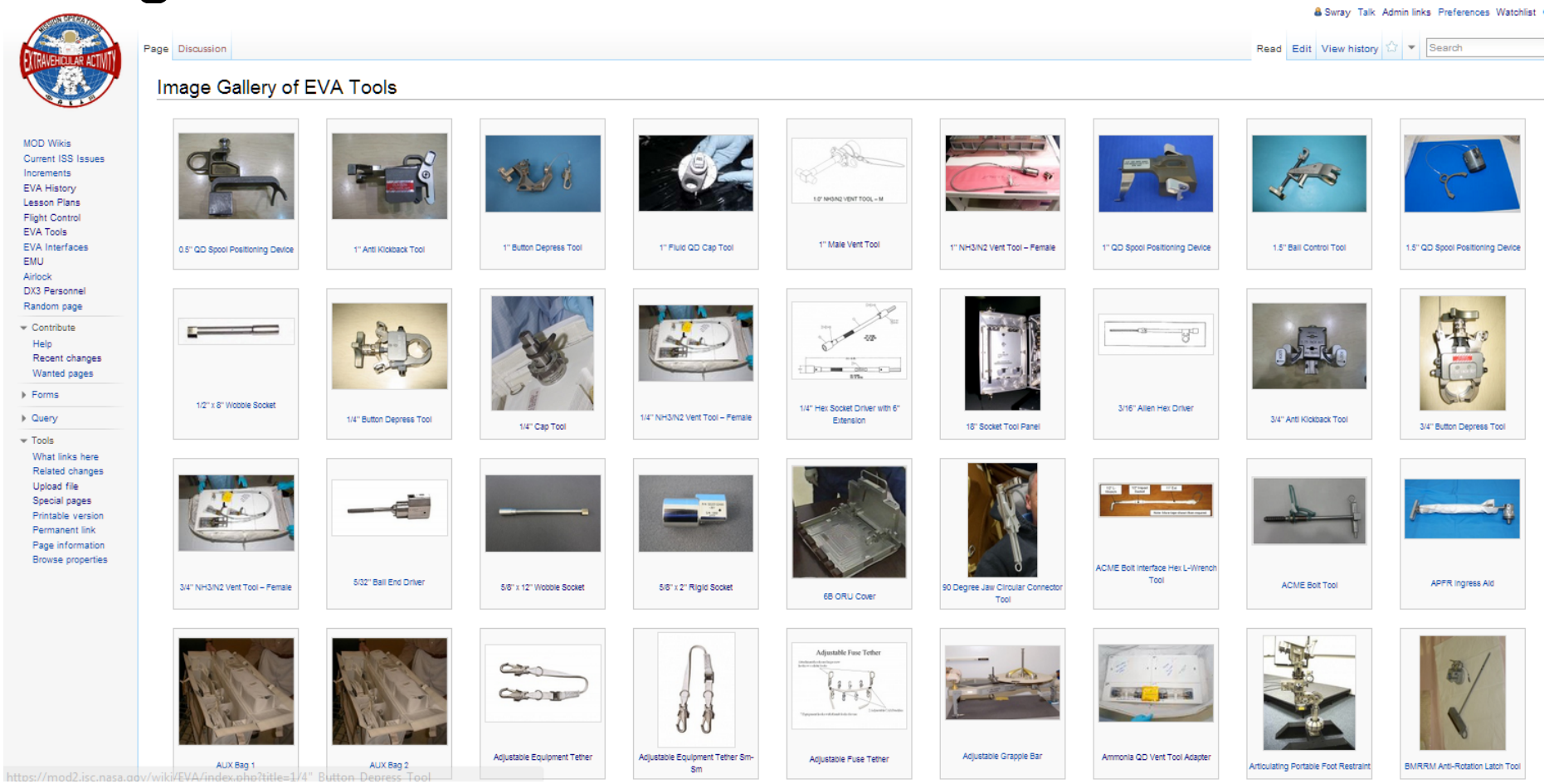
Image Source: 2012books.lardbucket.org

Imagery

- NASA's Imagery Online Database

Imagery

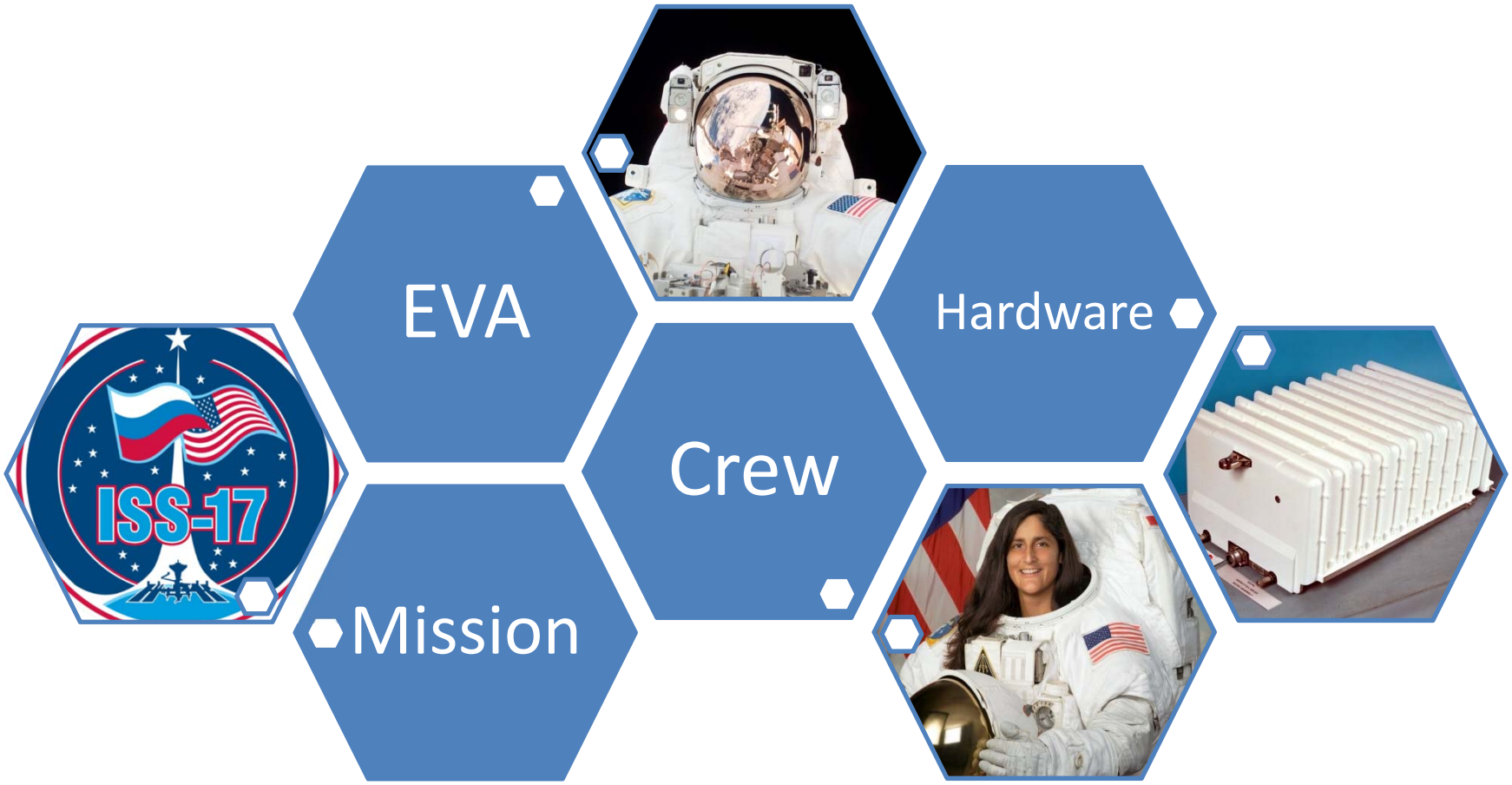
- Built templates and queries to create custom galleries



Meeting Minutes

- Until wiki was implemented, Meeting Minutes were captured via email
  - Information was lost in crowded inboxes
  - Cumbersome to search
- SMW was used to create Meeting Minutes form
- Served as a catalyst to get new users involved in the wiki
  - Editing, creating pages
- More on our wiki solution later…
  - Presentation from Daren Welsh

Mission/EVA History



Mission/EVA History

SMW allowed us to build a complex set of related pages easily

{{#ask: [[Category:Expedition]][[Mission end date::>{{CURRENTYEAR}}-{{CURRENTMONTH}}-{{CURRENTDAY}}]]
|? Mission start date
|? Mission end date
|? Has mission patch
| link=none
| format=template
| template=Expedition table row
| intro=<table class="wikitable smwtable"><tr><th>Patch</th><th>Expedition</th><th>Start (may be approximate)</th><th>End (may be approximate)</th><th>Crew</th><th>DX3 Team</th></tr>
| outro=</table>
}}

Mission/EVA History

- The possibilities are endless
- What if you want to list all the ISS Commanders?

Wikitext:

```
{{#ask: [[Category:Expedition]]
|Mainlabel=Expedition
|? Commander
|sort = Mission start date
|order = asc
}}
```

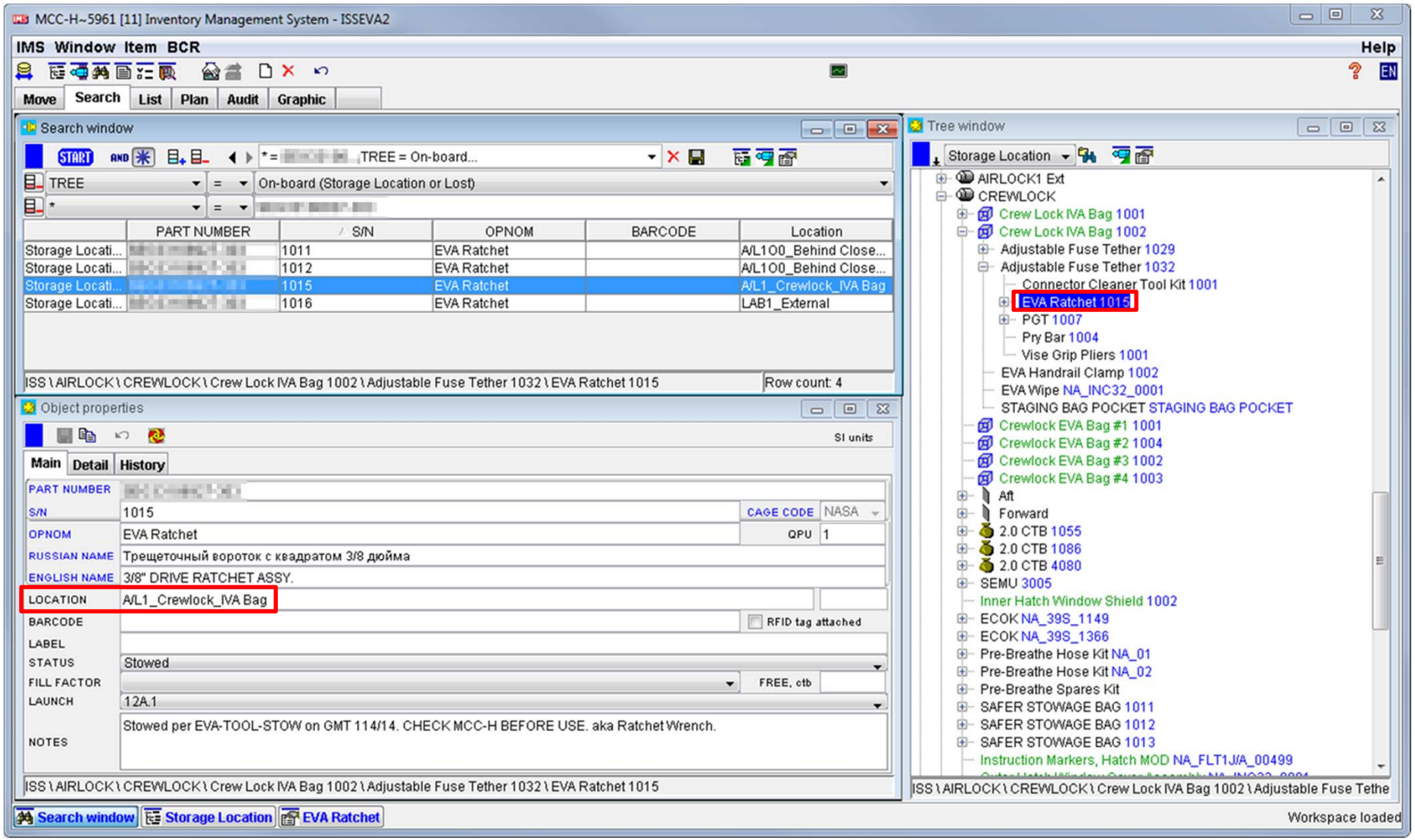
Output:

Expedition	Commander
Expedition 1	Bill Shepherd
Expedition 2	Yuri Usachev
Expedition 3	Frank Culbertson
Expedition 4	Yuri Onufrienko
Expedition 5	Valery Korzun
Expedition 6	Ken Bowersox
Expedition 7	Yuri Malenchenko
Expedition 8	Mike Foale
Expedition 9	Gennady Padalka
Expedition 10	Leroy Chiao
Expedition 11	Sergei Krikalev
Expedition 12	Bill McArthur
Expedition 13	Pavel Vinogradov
Expedition 14	Mike Lopez-Alegria
Expedition 15	Fyodor Yurchikhin
Expedition 16	Peggy Whitson
Expedition 17	Sergey Volkov
Expedition 18	Mike Fincke
Expedition 19	Gennady Padalka
Expedition 20	Gennady Padalka

INVENTORY MANAGEMENT

Image source: NASA.gov

Inventory Management System (IMS)



Inventory Management System (IMS)

Ops Nom	Parent	Label	Cur Loc	BarCode	Serial#	Part#	Status	Type	Notes
EVA Ratchet	Bag, Kit or Container Item is located in		LAB1_External		1016	[illegible]	Stowed	EQ	Stowed during STS-132 EVA. S/N not confirmed as the one stowed external. CHECK MCC-H BEFORE USE, aka Ratchet Wrench Home is 1.0 CTB S/N 1161. Slot #3
EVA Ratchet	Bag, Kit or Container Item is located in		A/L1O0_Behind Closeout		1011	[illegible]	Stowed	EQ	Stowed per EVA-TOOL-STOW on GMT 114/14. CHECK MCC-H BEFORE USE. (aka Ratchet Wrench) Home is 1.0 CTB S/N 1161.
EVA Ratchet	Bag, Kit or Container Item is located in		A/L1O0_Behind Closeout		1012	[illegible]	Stowed	EQ	Stowed per NORS PREP A/L RECONF tasklist activity on GMT 093/14. CHECK MCC-H BEFORE USE. aka Ratchet Wrench. Home is 1.0 CTB S/N 1161
EVA Ratchet	Bag, Kit or Container Item is located in		Returned		1009	[illegible]	Return	EQ	Returned per EVA
EVA Ratchet	Bag, Kit or Container Item is located in		A/L1_Crewlock_IVA Bag		1015	[illegible]	Stowed	EQ	Stowed per EVA-TOOL-STOW on GMT 114/14. CHECK MCC-H BEFORE USE. aka Ratchet Wrench.

Inventory Management System (IMS)

EVA Ratchet Wrench

The EVA ratchet wrench is a 3/8" ratchet drive wrench compatible with the drop proof tether system.

Contents [hide]

1 Features
2 Usage
3 Limit Loads Per (GCAR 2081 Rev C)
4 Anomalies
5 References

Features [edit]

The ratchet rotates 360 degrees in both clockwise and counter-clockwise directions. The direction is changed by rotating the collar located below the palm wheel. The palm wheel provides an alternative hand hold for turning the ratchet. The palm wheel can be released by depressing the button in the middle.

Usage [edit]

The ratchet wrench is compatible with the Cheater Bar

The ratchet wrench, Cheater Bar, and Torque Multiplier cannot be used in combination.

The palm wheel should be used for turns only; initial and final torques should be completed by using the ratchet handle. The palm wheel on the ratchet is limited to 30in-lb.[1] Higher forces can shear the drive shaft which retains the pieces of the ratchet head together. (1g Class III unit came apart into 6 pieces when the shaft sheared). The load rating when using the ratchet handle is 120 ft-lb.

Tool Info

Alias	Ratchet
Part Number	[redacted]
Links	IMS Certification Drawing (NDC Credentials) CMC Imagery
Mass (lbs.)	2
Length (in.)	15.53
Width (in.)	3.5
Height (in.)	3.06

Inventory Management System (IMS)

Wikitext:

{{#ims: ABC1234567-123}} ← EVA Ratchet Wrench Part Number

Output:

Note: the following data is pulled from the IMS database via a third-party script. Use the IMS Client before making mission decisions.

- ISS
  - LAB 1
    - LAB 1Ext
      - Z1 TRUSS EXT
        - Z1 Stbd Tool BoxNA_001
          - **EVA Ratchet1016**
            - Palm Wheel1018
- AIRLOCK
  - Overhead
    - O0
      - O0->
        - 1.0 CTB1161
          - **EVA Ratchet1011**
          - **EVA Ratchet1012**
  - CREWLOCK
    - Crew Lock IVA Bag1002
      - Adjustable Fuse Tether1032
        - **EVA Ratchet1015**
          - 7/16 x 2" Rigid1006

Statistics

- 2846 Content pages
- ~48,985 Edits since start of wiki
- 572 Registered Users
  - 480 Viewers (Read capability and can edit talk pages)
  - 86 Contributors
  - 6 Administrators
- Received NASA JSC Director Innovation Award in 2013
- Created 4 new wikis outside EVA