

Mission Success Starts With Safety



# Construction Safety

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SSC Construction Inspection  
Safety Findings/Stats

April 2011



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# Contact Info

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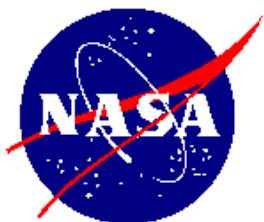
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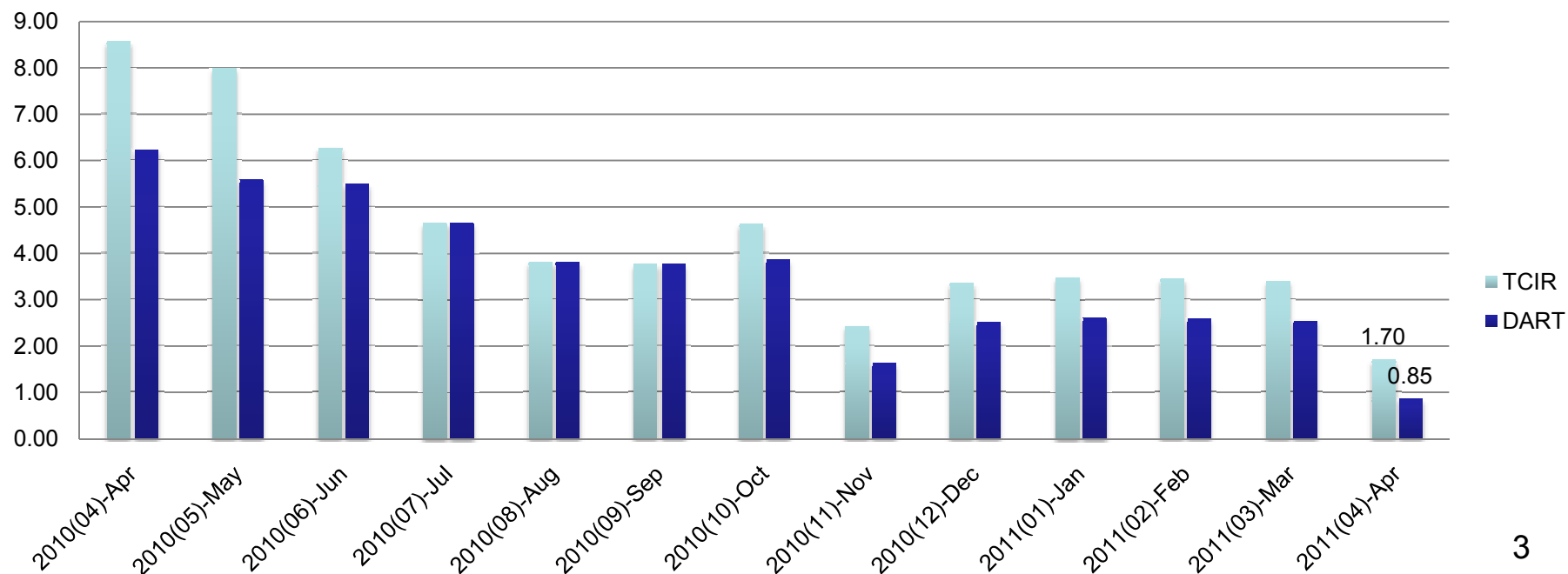
### Construction Days Away, Restricted Duty, Transferred Cases Incident Rate (DART), Total Case Incident Rate (TCIR)

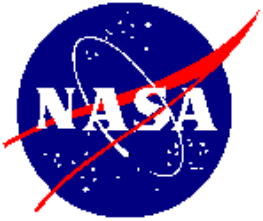
2009 NAICS Industry Code (Construction) DART = 2.3, TCIR = 4.3

*Zero or down is good*

NASA Direct Construction work resulted 1 restricted duty and 1 medical treatment in FY2011, with no recordables in CY2011... (one first aid in April, nonrecordable)

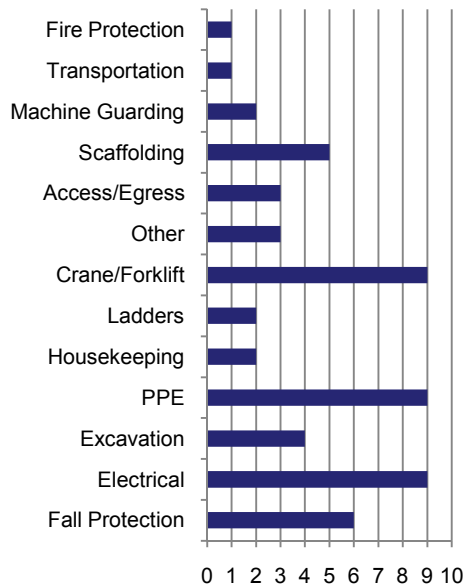
### Total Case Incident Rate (TCIR)/ Days Away Restricted Transfer (DART)



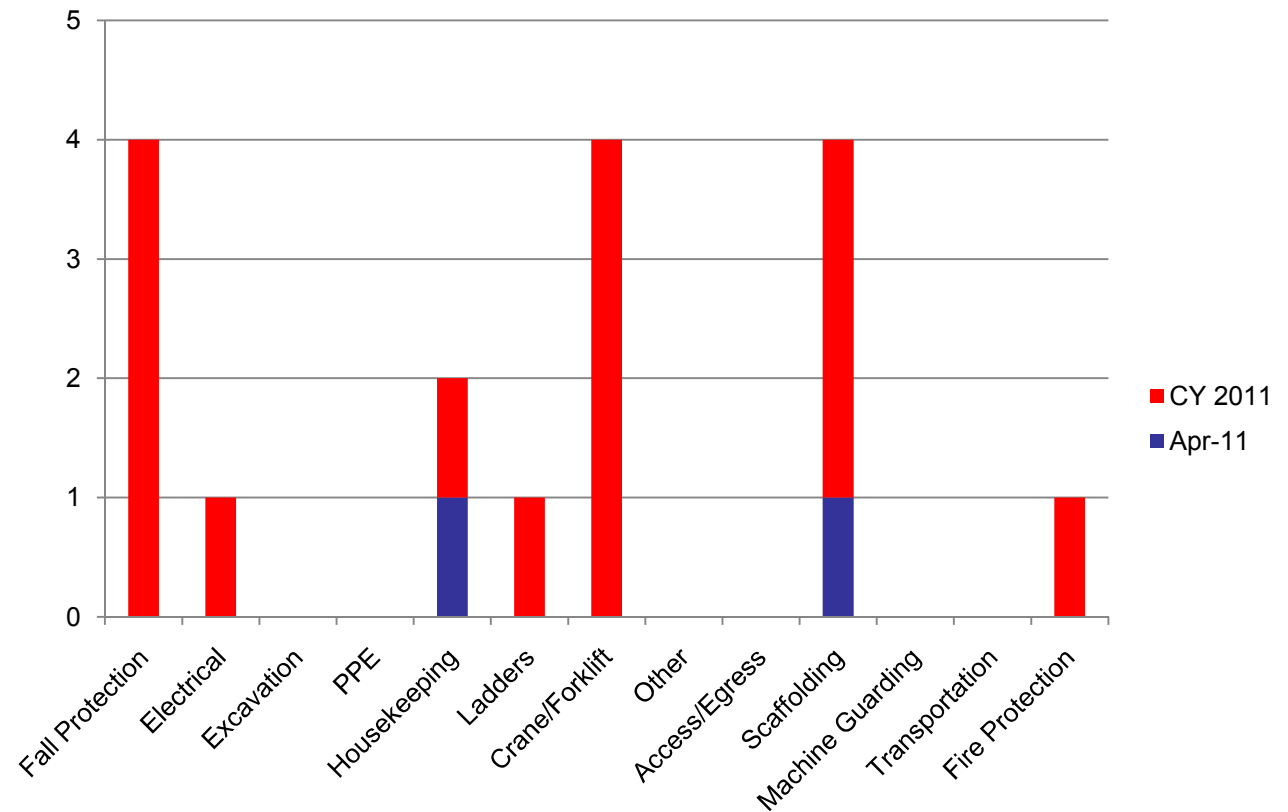


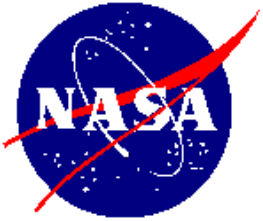
# Construction Safety Data: Construction Site Findings

Construction Site Findings  
(CY2010)



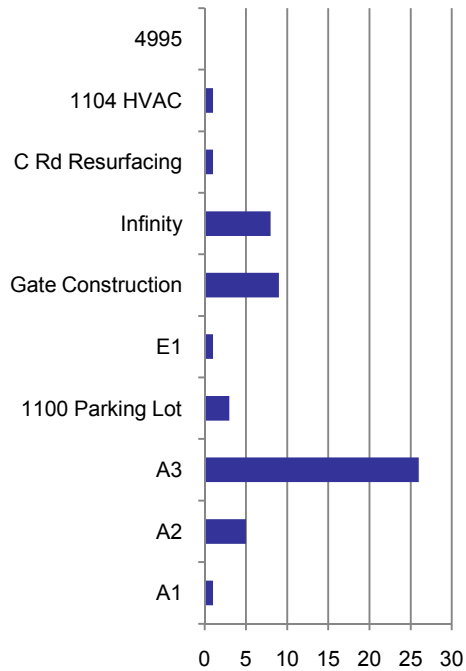
Construction Site Findings (CY2011)



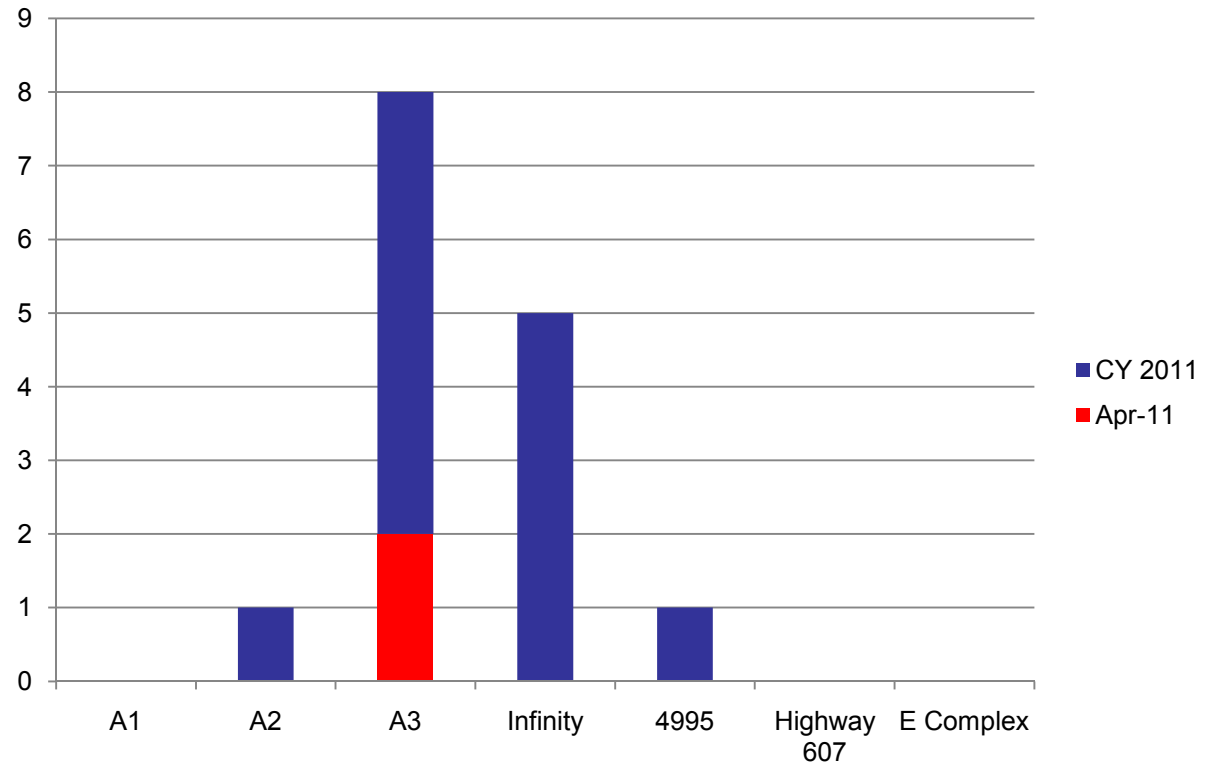


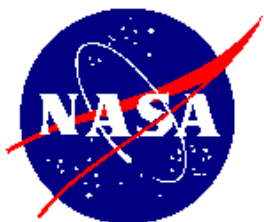
# Construction Safety Data: Construction Site Findings

Construction Site Findings  
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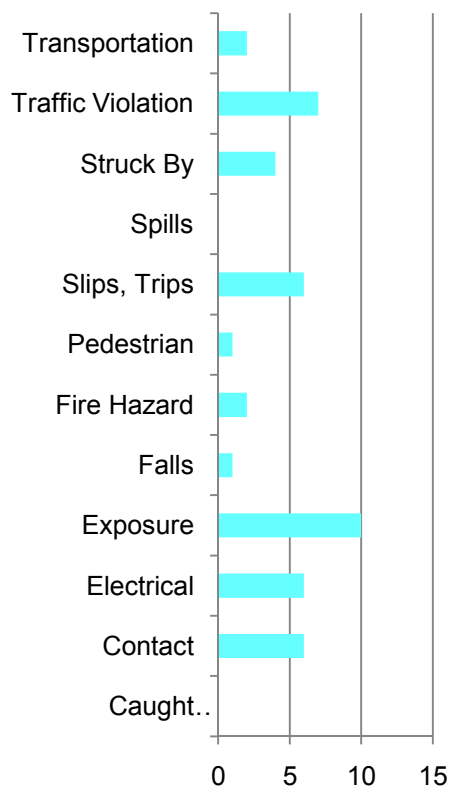
Construction Site Findings (CY2011)



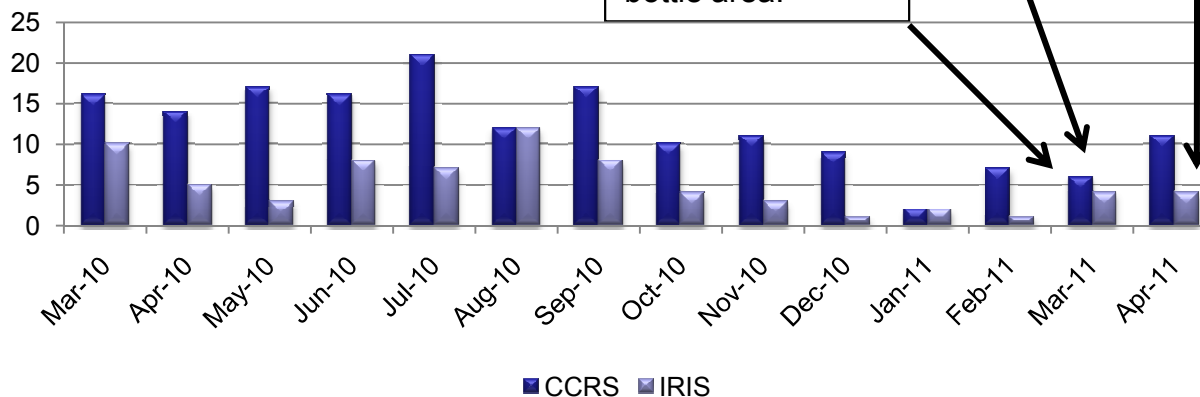
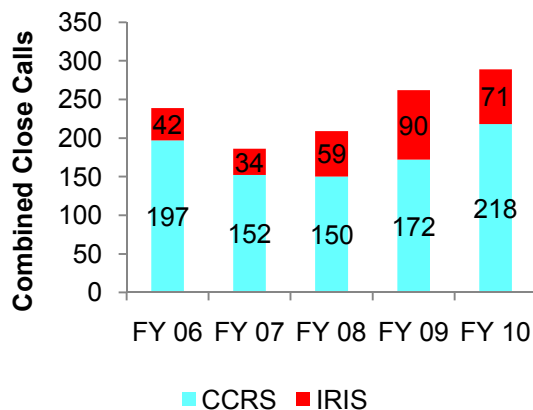


# SSC Close Calls

## CCRS Close Calls FY 2011



## Annual History



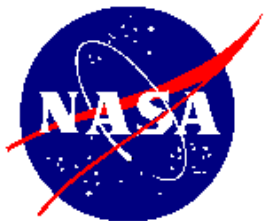
IRIS CC/ Scaffolding and a magnet are dropped from crane at A3

IRIS CC/Aerial work platform strike electrical line

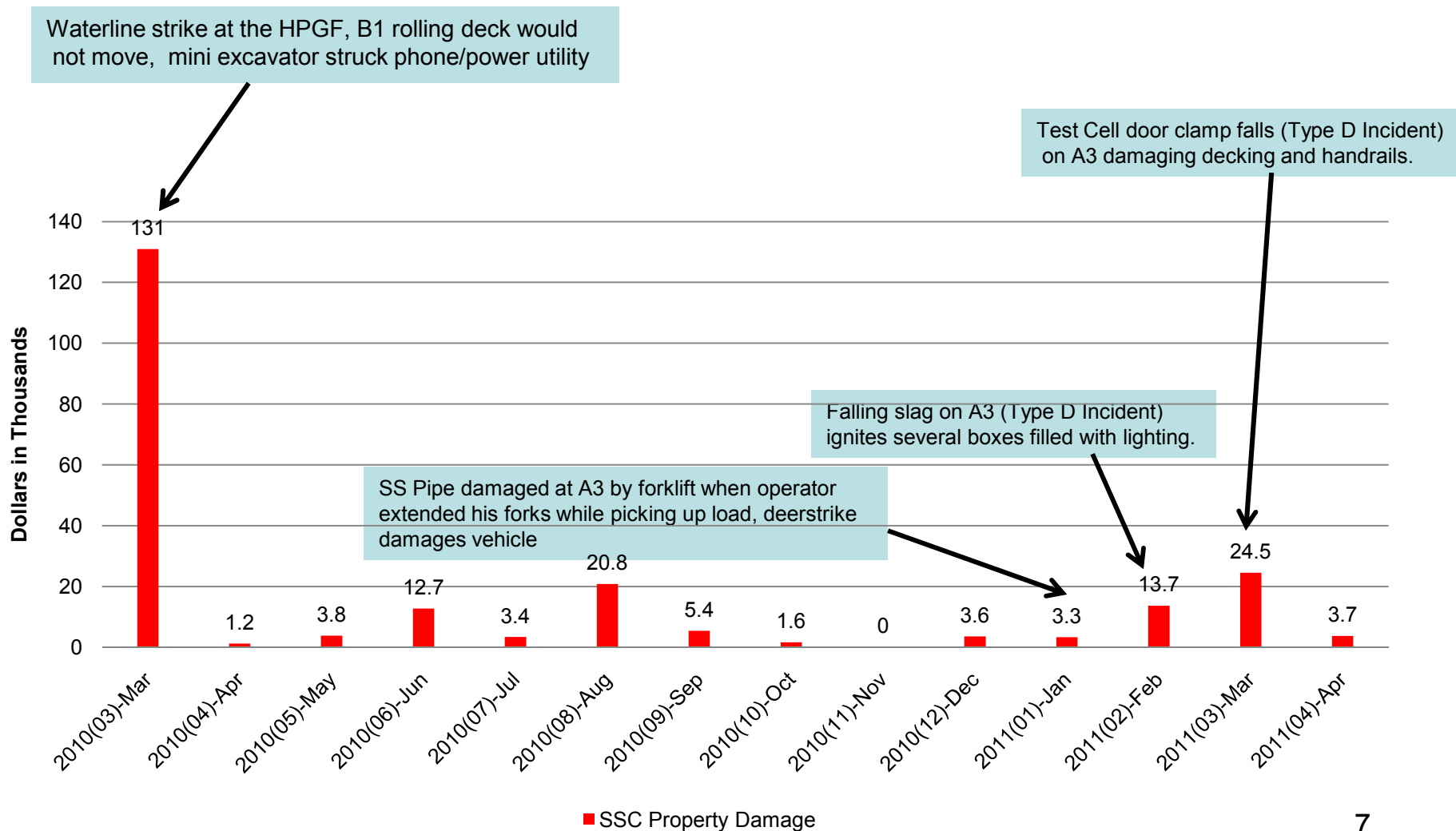
CCRS/Striking Graylock connection with system under pressure at E2 bottle area.

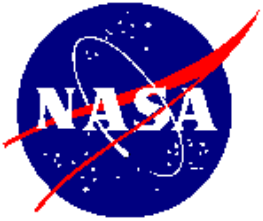
\*IRIS Close Calls include events with minor equipment damage < \$1000, but with the potential to cause a mishap; and/or, an injury requiring first aid but with greater potential for harm. CCRS close calls are those close calls not meeting the aforementioned criteria.

\*\*For listing of close calls see backup.



# Property Damage for SSC





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# Construction Safety Findings: 04-08 April 2011

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**Findings Total: 0**

**-Serious Findings: 0**

**-Less than Serious Findings: 0**

**Mishaps / Close Calls: 2**

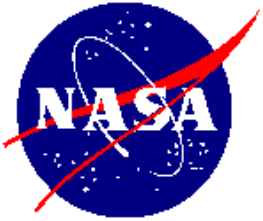
**-Mishap: 1**

1. A welder was performing cutting operations with an Oxygen/Acetylene torch, from atop a fiberglass ladder. A hot piece of angle iron fell and wedged between the ladder's leg and a concrete wall, causing the ladder's leg to smolder. The fire watch stopped the job and extinguished the ladder. SSC Fire Department was notified and responded. The damaged ladder was removed from service and no one was injured.

**-Close Call: 1**

1. A scissor lift was being lowered from an upper level of the building with a fork lift. An employee on upper level assisting with lift was observed working next to an unprotected edge without fall protection. Reporting person stopped at the jobsite and notified the site supervisor.





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# Construction Safety Findings: 11-15 April 2011

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**Findings Total: 0**

**-Serious Findings: 0**

**-Less than Serious Findings: 0**

**Mishaps / Close Calls: 0**



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# Construction Safety Findings: 18-22 April 2011

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**Findings Total: 0**

**-Serious Findings: 0**

**-Less than Serious Findings: 0**

**Mishaps / Close Calls: 1**

**-Mishap: 1**

1. A worker was involved in a mishap with a 4" side grinder. While beveling a tack on a 36" pipe, the grinder kicked back and struck the worker in the face. A small abrasion just below the right eye was sustained. The wound was cleaned and an antibacterial gel was applied. The worker elected to not go to the clinic for care. Though wearing safety glasses and a face shield at the time of the injury, the worker admitted to not having the face shield fully lowered. The worker was counseled, and the contractor foreman briefed all employees about the proper wearing of PPE. (This mishap has been classified as a first aid.)



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# Construction Safety Findings: 25-29 April 2011

## Findings Total: 1

**-Serious Findings: 0**

**-Less than Serious Findings: 1**

1. General Housekeeping on the test stand has been a problem over the last several weeks, specifically on Level seven, where multiple contractors are at work. Additionally, the scaffolding is not being kept free of debris (nails, wires, etc.). 29 CFR 1926.250

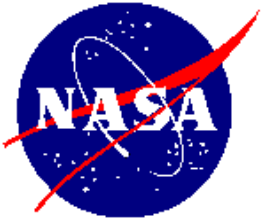
## Mishaps / Close Calls: 2

**-Mishap: 1**

1. A FOSC employee driving a GOV, struck a parked POV while attempting to go around it, near a construction site. The POV was owned by a construction worker and appeared to be illegally parked. Security was notified and the employee was sent to the clinic for post incident screening. There were no injuries, minor damage to the POV and damage to the GOV is estimated at \$1,200.00, making this a type D Mishap.

**-Close Call: 1**

1. A temporary power wire (277volts) inside flex conduit (1/2" diameter) was struck by the basket of an aerial work platform. Two ATV employees in the platform basket were in the process of re-positioning the basket in order to paint bolts securing section DD of the elbow portion on the Test Stand. While moving, the front corner of the basket came in contact with the flex conduit that protected the temporary wiring. The contact between the basket and steel structure caused the wiring to be pinched, which caused the wire to arc. No employees were injured and minor damage was caused to the conduit and wire, making this incident a Close Call.



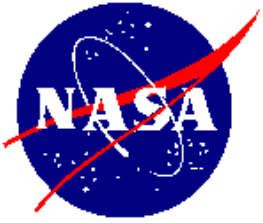
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## Construction Safety

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The following video demonstrates how the long term affects of not taking care of your eyes or ears could result in a very unfortunate situation!



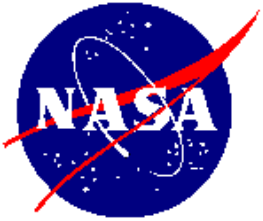
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Take Care of your eyes and ears!

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# Construction Safety

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Have a SAFE month!



# Backup



# Construction Safety Findings: Incident Information Reporting System (IRIS) Cases

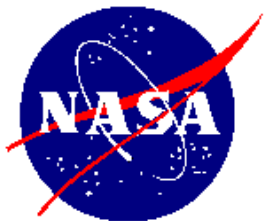
IRIS Case Number	October	Organization	Incident Description	Closed	Type	Med Case #
S-2010-279-00007	10/6/2010	RAC/ICI	Foreign body in eye	Closed	D	C-2010-279-00004
S-2010-327-00009	11/17/2010	AT&V	Possible lead based paint exposure at A1 T/S	Closed	FA	C-2010-327-00007
S-2011-073-00001	12/1/2010	RAC/ICI	Employee dropped wrench on hand	Open	C	C-2010-336-00009
S-2011-010-00008	1/5/2011	M&D Mechanical	Fork lift operator ran forks into pipe	Closed	D	N/A
S-2011-034-00002	2/2/2011	Drace	While core drilling, cut electrical line	Closed	D	N/A
S-2011-049-00009	2/18/2011	Drace	While core drilling, cut communication line	Closed	CC	N/A
S-2011-073-00002	2/24/2011	AT&V	Welding sparks started fire on LVL 5 A3 T/S	Open	D	N/A
S-2011-070-00005	3/7/2011	Stone Mountain	Employee almost struck by falling scaffolding	Open	CC	N/A
S-2011-076-00005	3/16/2011	AT&V	A3 Test Cell Door Clamp fell	Open	D	N/A
S-2011-084-00002	3/21/2011	AT&V	A magnet dropped approximately 160 feet from A3	Open	CC	N/A
S-2011-109-00012	4/18/2011	M&D Mechanical	A3 worker cut face with grinder	Open	FA	Nonclinic
S-2011-119-00003	4/27/2011	AT&V	Aerial work platform struck electrical wire	Open	CC	N/A





# Construction Safety Findings: Close Call Reporting System (CCRS) Cases

Case Number	Date-Time Submitted	Reviewed Incident Description	Safety Location Type	Safety Location	Safety Sub-Location	Submitter Organization	Attachments
11-002	10/4/2010 10:21:35 AM	As requested by NASA Safety, PWR is documenting an additional electronic close call regarding diesel fumes in the DAF building. On 9/27/10, diesel fumes entered the building while using a diesel operated crane to remove tapes from the building, NASA electronic close call #10-206. On 10/20/2009, a similar problem with diesel fumes entering the building was documented on NASA electronic close call #10-011. The closure rationale for this close call (10-011) would be to provide administrative controls to mitigate such hazards. Apparently this is not working.	Building	4995 ()		PWR, INC - Pratt & Whitney/Rocketdyne Inc	<a href="#">View</a>
11-010	10/27/2010 3:36:02 PM	There is water collecting in on of the lights and dripping on the floor. Someone could easily slip and fall with the water on the floor. I don't know if this is from the A/C leaking or not. I had been raining the day before and the morning, so it could also be a leak in the roof. The potential to damage electronic equipment also exists. I did wipe up the floor to prevent possible fall. If there is water on the floor again, leak is still present.	Building	4995 ()	RM 150 ()	LMES&S - Lockheed Martin Enterprise Solutions & Services	<a href="#">View</a>
11-013	11/3/2010 11:31:37 AM	I was in the Post Office when a fire alarm sounded - only myself and the postal worker were there. We decided to exit the door closest to the Post Office, but construction was going on in that area - the yellow caution signs were visible and the red "do not enter" tape was displayed. When I saw this I said to the postal worker, "we can't exit her because of the caution signs". She said, they (construction workers) told me I could just go under the red tape, I come this way everyday. I told her that is not safe. I turned around and exited through another door, but she preceded to exit through the construction tape.	Building	1100 (Exterior)	North side (Near old clinic/post office area entrance)	LA - Office of Human Capital	<a href="#">View</a>



# NASA Mishap Classification

Classification Level & Investigation Type	Property Damage	Injury
<b>Type A Mishap</b>	<p>Total direct cost of mission failure and property damage is \$2,000,000 or more,</p> <p style="text-align: center;"><i>or</i></p> <p>Crewed aircraft hull loss has occurred,</p> <p style="text-align: center;"><i>or</i></p> <p>Occurrence of an unexpected crewed aircraft departure from controlled flight (except high performance jet/test aircraft such as F-15, F-16, F/A-18, T-38, OV-10, and T-34, when engaged in flight test activities).</p>	<p>Occupational injury and/or illness that resulted in:</p> <p>A fatality,</p> <p style="text-align: center;"><i>or</i></p> <p>A permanent total disability,</p> <p style="text-align: center;"><i>or</i></p> <p>The hospitalization for inpatient care of 3 or more people within 30 workdays of the mishap.</p>
<b>Type B Mishap</b>	<p>Total direct cost of mission failure and property damage of at least \$500,000 but less than \$2,000,000.</p>	<p>Occupational injury and/or illness has resulted in permanent partial disability.</p> <p style="text-align: center;"><i>or</i></p> <p>The hospitalization for inpatient care of 1-2 people within 30 workdays of the mishap.</p>
<b>Type C Mishap</b>	<p>Total direct cost of mission failure and property damage of at least \$50,000 but less than \$500,000.</p>	<p>Nonfatal occupational injury or illness that caused any workdays away from work, restricted duty, or transfer to another job beyond the workday or shift on which it occurred.</p>
<b>Type D Mishap</b>	<p>Total direct cost of mission failure and property damage of at least \$1,000 but less than \$50,000.</p>	<p>Any nonfatal OSHA recordable occupational injury and/or illness that does not meet the definition of a Type C mishap.</p>
<b>Close Call</b>	<p>An event in which there is no equipment/property damage or minor equipment/property damage (less than \$1000), but which possesses a potential to cause a mishap.</p>	<p>An event in which there is no injury or only minor injury requiring first aid, but which possesses a potential to cause a mishap</p>



# NASA Mishap Classification

- Medical Treatment (Type D) is defined as 1 dose prescription med, OTC med at prescription strength or anything other than the following:

First Aid includes:

- Observation or counseling
- Diagnostic procedures, including X-ray, blood tests
- Over-the-counter med's at over-the-counter strength
- Tetanus
- Cleaning, flushing or soaking wounds
- Wound coverings, including suture substitutes such as butterfly bandages and Steri-strips
- Hot/cold treatment
- Non-rigid support such as ace, non-rigid back belts, etc.
- Temporary immobilization for transport purposes
- Drilling of nail to relieve sub-ungual hematoma
- Eye patches
- Foreign Body (FB) removal from eye using only irrigation or swab
- Simple skin FB removal
- Finger guards
- Massages