



National Response Directorate

RISK MANAGEMENT AND GAR 2.0

Dan Cole
Division Chief – Surface Operations





ALCOAST COMMANDANT NOTICE

ACN 030/18, March 2018

- Implemented COMDTINST 3500.3A

Cancelled:

1. Operational Risk Management
COMDTINST 3500.3,
2. Crew Endurance Management
COMDTINST 3500.2 and
3. Team Coordination Training
COMDTINST 1541.1



IMPLEMENTATION

- These policy changes apply to ALL personnel involved with planning, conducting, supervising, and monitoring Coast Guard activities that can pose safety risks to personnel and equipment. Units have 12 months to implement these changes.
- Current implementation date:
end of March 2019



Risk Management and GAR 2.0

- New Risk Management tool GAR 2.0 is explained in COMDTINST 3500.3A
- Follows extensive testing and validation, indicating a more accurate assessment of hazards.



COMDTINST 3500.3A RISK MANAGEMENT

- Coast Guard operations are complex, dynamic, and involve acceptance of some level of risk.
- This instruction provides a framework to identify and assess hazards, evaluate the risk level, and weigh the risk against potential benefits.



COMDTINST 3500.3A RISK MANAGEMENT

- Reintroduces the **PEACE** and **STAAR** models:
 - P**lanning
 - E**vent Complexity
 - A**sset
 - C**ommunications
 - E**nvironment
 - S**pread out
 - T**ransfer
 - A**void
 - A**ccept
 - R**educe

Together, these models help to identify hazards and explore mitigation strategies during risk assessment.

This instruction also includes links to various Job Aids.



PEACE – STAAR Job Aid

PEACE MODEL

- **P**LANNING

- Mission plans may become outdated for any number of reasons.

Consider what could go wrong with:

1. Changes in status of equipment, personnel, the environment, or mission,
2. Incorrect/insufficient information,
3. Unclear or undefined tasks,
4. Roles are which unclear or unassigned.



PEACE – STAAR Job Aid

PEACE MODEL

- **Event Complexity**

- Amount of data, number of participants, and number of steps all contribute to complexity.

Consider what could go wrong if:

1. Coordination with other agencies, assets or units breaks down,
2. The crew performs activities incorrectly,
3. The crew is unable to monitor multiple data streams.



PEACE – STAAR Job Aid

PEACE MODEL

- **Assets**

- Includes facilities, equipment, and personnel.

Consider what could go wrong if:

- A platform is used in its current condition,
- The operational experience, fitness, or confidence of the crew is inadequate,
- The fitness level (e.g. rest, hydration, nutrition) of the crew is not satisfactory.



PEACE – STAAR Job Aid

PEACE MODEL

- **Communication and Supervision**

Poor communication and supervision can impair the crew's ability to maintain situational awareness and receive feedback about decisions.

Consider what could go wrong if:

1. Crew cannot communicate with the Command Center,
2. There are communication problems amongst the crew.



PEACE – STAAR Job Aid

PEACE MODEL

- **Environment**

- Consider what could go wrong with equipment, personnel, environment or mission given the:

1. Weather,
2. Illumination,
3. Debris in the water,
4. Congested AOR,
5. Airspace conflicts.



PEACE – STAAR Job Aid

STAAR MODEL

- Spread out:
 1. Refers to the movement of forces, equipment, or tasks to other areas to avoid risk to the mission,
 2. Spreading resources can mitigate potential risk by reducing exposure in a single area.



PEACE – STAAR JOB AID

STAAR Model

- **Transfer**
 - Risk may be reduced by transferring all or some of the mission to another individual, unit, or platform that is better positioned, more survivable or more capable. This does not reduce risk to the unit , but reduces risk to the total force.



PEACE – STAAR Job Aid

STAAR Model

- **Avoid**
 1. It may be possible to avoid risks by going around them or doing the mission in a different manner. For example risks associated with a night mission might be avoided by rescheduling to daylight hours;
 2. Other hazards or impacts may have to be evaluated.



PEACE – STAAR Job Aid

STAAR Model

- **Accept**
 - Accept risks when benefits clearly outweigh the costs, but only as necessary to complete the task or mission;

For example, operating in harsh conditions such as cold temperatures, accept the hazard but provide more breaks for warming, issue warmer clothing, and/or provide portable heaters.



PEACE – STAAR Job Aid

STAAR Model

- **Reduce**

- Reducing the number of people, equipment, or resources exposed to a hazard is a simple way of mitigating risk,
 - Although this may reduce risk, it must be weighed against mission success;
 - For instance, fewer people on deck during a cold weather operation reduces risk to the members, it may compromise mission performance.



PEACE – STAAR Job Aid

General Assessment of Risk (GAR) 2.0

- Provides a convenient tool to capture the deliberations of the PEACE and STAAR elements, integration of the “Gain” or benefit information to make Warranted Risk decisions.
 - The GAR 2.0 Job Aid contains risk assessment forms for Afloat, Ashore, and Aviation activities.
 - Units are authorized to add elements, but are not authorized to remove elements or alter scoring scales.



GAR 2.0 FORMS are contained in the PEACE - STAAR Job Aid.

USCG Afloat Risk Assessment								
Mission:		Date:						
Step 1: Identify, Assess, & Mitigate Risk Elements								
<p>Instructions: To determine the level of risk for each element below, estimate the risk level based on the Low/Medium/High scale. If your perceived rating is Medium or High, explore mitigations. Draw a line through the risk zone that corresponds to the mitigated risk level and document the perceived risk(s) and mitigation(s) in the space provided.</p>	Rate Risk Zone							
<p>Planning - Enough time and information to conduct thorough pre-mission planning. Consider: B-0 response, completeness of mission information and of on-scene details. NOTES/MITIGATIONS:</p>	<table border="1"> <tr> <th>Complete</th> <th>Partial</th> <th>None</th> </tr> <tr> <td>L</td> <td>M</td> <td>H</td> </tr> </table>	Complete	Partial	None	L	M	H	
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<p>Event - Refers to mission complexity. Consider: non-standard mission profile, coordinating multi-agency/nationality, language barriers, not performed often, etc. NOTES/MITIGATIONS:</p>	<table border="1"> <tr> <th>Low</th> <th>Moderate</th> <th>Extreme</th> </tr> <tr> <td>L</td> <td>M</td> <td>H</td> </tr> </table>	Low	Moderate	Extreme	L	M	H	
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<p>Asset - Crew - Proper number and skill set for the mission. Consider: time at unit, familiarity w/OP area, fatigue, u/w time, crew selection, adequate supervision, etc. NOTES/MITIGATIONS:</p>	<table border="1"> <tr> <th>Excellent</th> <th>Marginal</th> <th>Poor</th> </tr> <tr> <td>L</td> <td>M</td> <td>H</td> </tr> </table>	Excellent	Marginal	Poor	L	M	H	
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<p>Asset - Cutter/Boat Resources - Proper number and operational characteristics for mission. Consider: operational thresholds/limitations, status of equipment, etc. NOTES/MITIGATIONS:</p>	<table border="1"> <tr> <th>Ideal</th> <th>Restrictions</th> <th>Limitations</th> </tr> <tr> <td>L</td> <td>M</td> <td>H</td> </tr> </table>	Ideal	Restrictions	Limitations	L	M	H	
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Step 2: Determine Overall Risk Level								
<p>Consider: 1) the rating for each element above, 2) the importance of the element for mission execution, and 3) how elements may interact. Rate the perceived Overall Risk Level when considering this information. Circle the risk zone (Low, Medium, or High) that corresponds to your perceived overall risk level:</p>								
<table border="1"> <tr> <td>Low</td> <td>Medium</td> <td>High</td> </tr> </table>			Low	Medium	High			
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<p><i>*PEACE elements are required per COMDTINST 3500.3A. Additional unit specific elements are permitted.</i></p>								



USCG Afloat Risk Assessment			
Step 3: Determine Risk vs. Gain: Do gains warrant the risk?			
<p>Step 3a. Enter the <i>Overall Risk Level</i> (Step 2 on prior page) in the RISK box below (<i>Low, Medium, or High</i>).</p> <p>Step 3b. Review the definitions for Gain below and enter the level in the GAIN box below. (<i>Low, Medium, or High</i>).</p>			
<p>Level of Gain</p> <ul style="list-style-type: none"> ➤ Low – Situation with unclear benefits or a low probability for providing concrete results. <i>Examples: passenger transport, non-critical logistics missions, and public affairs demonstrations.</i> ➤ Medium – Situation that provides immediate and real benefits. <i>Examples: saving property, protecting the environment, deterring illegal operations.</i> ➤ High – Situation that provides immediate and real benefits that if ignored could result in loss of life. <i>Examples: Urgent SAR and MEDEVACs.</i> 			
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<p>Step 3c. Use the Risk vs. Gain values from above and follow the column and row until they cross. The intersecting point is the recommended action.</p> <p><i>Example, if Risk is 'low' and Gain is 'medium', the recommendation is: "Accept the Mission. Continue to monitor Risk Factors, if conditions or mission changes".</i></p>			
Risk vs. Gain	High Gain	Medium Gain	Low Gain
Low Risk	<p>Accept the Mission. Monitor Risk Factors and re-evaluate if conditions or mission/activities change.</p>	<p>Accept the Mission. Monitor Risk Factors and re-evaluate if conditions or mission/activities change.</p>	<p>Accept the Mission. Monitor Risk Factors and re-evaluate if conditions or mission/activities change.</p>
Medium Risk	<p>Accept the Mission. Monitor Risk Factors and employ Controls when available. Re-evaluate if conditions or mission change.</p>	<p>Accept the Mission. Monitor Risk Factors and employ Controls when available. Re-evaluate if conditions or mission change.</p>	<p>Accept the Mission Only with Command Endorsement Communicate Risk vs. Gain to Chain of Command. Implement Controls and continuously evaluate conditions and mission for change.</p>
High Risk	<p>Accept the Mission Only with Command Endorsement. Communicate Risk vs. Gain to Chain of Command. Implement Controls and monitor Risk Factors. Continuously evaluate conditions and mission change.</p>	<p>Accept the Mission Only with Command Endorsement. Communicate Risk vs. Gain to Chain of Command. Implement Controls and monitor Risk Factors. Continuously evaluate conditions and mission change.</p>	<p>DO NOT Accept the Mission. Communicate to Chain of Command. Wait until Risk Factors change or Controls are available to warrant Risk exposure.</p>

NOTES:

Page 2 of the GAR 2.0 Risk Assessment form found in the PEACE – STAAR Job Aid.



After the heading, Ashore Risk Assessment form text is identical to afloat Risk Assessment.

USCG Ashore Risk Assessment								
Mission:		Date:						
Step 1: Identify, Assess, & Mitigate Risk Elements								
<p>Instructions: To determine the level of risk for each element below, estimate the risk level based on the Low/Medium/High scale. If your perceived rating is Medium or High, explore mitigations. Draw a line through the risk zone that corresponds to the mitigated risk level and document the perceived risk(s) and mitigation(s) in the space provided.</p>	<h2>Rate Risk Zone</h2>							
<p>Planning - Enough time and information to conduct thorough pre-mission planning. Consider: B-0 response, completeness of mission information and of on-scene details. NOTES/MITIGATIONS:</p>	<table border="1"> <tr> <th>Complete</th> <th>Partial</th> <th>None</th> </tr> <tr> <td style="text-align: center;">L</td> <td style="text-align: center;">M</td> <td style="text-align: center;">H</td> </tr> </table>	Complete	Partial	None	L	M	H	
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<p>*PEACE elements are required per COMDTINST 3500.3A. Additional unit specific elements are permitted.</p>								



Again, identical to the Afloat Risk Assessment other than title heading.

USCG Ashore Risk Assessment			
Step 3: Determine Risk vs. Gain: Do gains warrant the risk?			
<u>Step 3a.</u> Enter the Overall Risk Level (Step 2 on prior page) in the RISK box below (Low, Medium, or High).			
<u>Step 3b.</u> Review the definitions for Gain below and enter the level in the GAIN box below. (Low, Medium, or High).			
<p>Level of Gain</p> <ul style="list-style-type: none"> ➤ Low – Situation with unclear benefits or a low probability for providing concrete results. <i>Examples: passenger transport, non-critical logistics missions, and public affairs demonstrations.</i> ➤ Medium – Situation that provides immediate and real benefits. <i>Examples: saving property, protecting the environment, deterring illegal operations.</i> ➤ High – Situation that provides immediate and real benefits that if ignored could result in loss of life. <i>Examples: Urgent SAR and MEDEVACs.</i> 			
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <div style="border: 1px solid black; width: 80px; height: 30px; margin: 0 auto;"></div> <p>RISK (Low, Med, High)</p> </div> <div style="text-align: center;"> <p>Vs.</p> </div> <div style="text-align: center;"> <div style="border: 1px solid black; width: 80px; height: 30px; margin: 0 auto;"></div> <p>GAIN (Low, Med, High)</p> </div> </div>			
<u>Step 3c.</u> Use the Risk vs. Gain values from above and follow the column and row until they cross. The intersecting point is the recommended action. <i>Example, if Risk is 'low' and Gain is 'medium', the recommendation is: "Accept the Mission. Continue to monitor Risk Factors, if conditions or mission changes".</i>			
Risk vs. Gain	High Gain	Medium Gain	Low Gain
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NOTES:



Adds separate Asset categories
For Pilots and Aircrew, all other
text remains the same.

USCG Aviation Risk Assessment								
Mission:		Date:						
Step 1: Identify, Assess, & Mitigate Risk Elements								
<p>Instructions: To determine the level of risk for each element below, estimate the risk level based on the Low/Medium/High scale. If your perceived rating is Medium or High, explore mitigations. Draw a line through the risk zone that corresponds to the mitigated risk level and document the perceived risk(s) and mitigation(s) in the space provided.</p>		Rate Risk Zone						
<p>Planning - Enough time and information to conduct thorough pre-mission planning. Consider: B-0 response, completeness of mission information and of on-scene details. NOTES/MITIGATIONS:</p>	<table border="1"> <tr> <th>Complete</th> <th>Partial</th> <th>None</th> </tr> <tr> <td style="text-align: center;">L</td> <td style="text-align: center;">M</td> <td style="text-align: center;">H</td> </tr> </table>	Complete	Partial	None	L	M	H	
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Low	Moderate	Extreme						
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<p>Asset - Pilots - Proper number and skill set for the mission. Consider: time at unit, familiarity w/OP area, fatigue, u/w time, crew selection, adequate supervision, etc. NOTES/MITIGATIONS:</p>	<table border="1"> <tr> <th>Excellent</th> <th>Marginal</th> <th>Poor</th> </tr> <tr> <td style="text-align: center;">L</td> <td style="text-align: center;">M</td> <td style="text-align: center;">H</td> </tr> </table>	Excellent	Marginal	Poor	L	M	H	
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<p>Asset - Aircrew - Proper number and skill set for the mission. Consider: time at unit, familiarity w/OP area, fatigue, u/w time, crew selection, adequate supervision, etc. NOTES/MITIGATIONS:</p>	<table border="1"> <tr> <th>Ideal</th> <th>Restrictions</th> <th>Limitations</th> </tr> <tr> <td style="text-align: center;">L</td> <td style="text-align: center;">M</td> <td style="text-align: center;">H</td> </tr> </table>	Ideal	Restrictions	Limitations	L	M	H	
Ideal	Restrictions	Limitations						
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<p>Asset - Airframe/Resources - Proper number and operational characteristics for mission. Consider: operational thresholds/limitations, status of equipment, etc. NOTES/MITIGATIONS:</p>	<table border="1"> <tr> <th>Excellent</th> <th>Partial</th> <th>None</th> </tr> <tr> <td style="text-align: center;">L</td> <td style="text-align: center;">M</td> <td style="text-align: center;">H</td> </tr> </table>	Excellent	Partial	None	L	M	H	
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Other than title header,
Identical to the previous Risk
Assessment forms.

USCG Aviation Risk Assessment			
Step 3: Determine Risk vs. Gain: Do gains warrant the risk?			
Step 3a. Enter the <i>Overall Risk Level</i> (Step 2 on prior page) in the RISK box below (<i>Low, Medium, or High</i>).			
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Level of Gain			
<ul style="list-style-type: none"> ➤ Low – Situation with unclear benefits or a low probability for providing concrete results. <i>Examples: passenger transport, non-critical logistics missions, and public affairs demonstrations.</i> ➤ Medium – Situation that provides immediate and real benefits. <i>Examples: saving property, protecting the environment, deterring illegal operations.</i> ➤ High – Situation that provides immediate and real benefits that if ignored could result in loss of life. <i>Examples: Urgent SAR and MEDEVACs.</i> 			
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Low Risk	Accept the Mission. Monitor Risk Factors and re-evaluate if conditions or mission/activities change.	Accept the Mission. Monitor Risk Factors and re-evaluate if conditions or mission/activities change.	Accept the Mission. Monitor Risk Factors and re-evaluate if conditions or mission/activities change.
Medium Risk	Accept the Mission. Monitor Risk Factors and employ Controls when available. Re-evaluate if conditions or mission change.	Accept the Mission. Monitor Risk Factors and employ Controls when available. Re-evaluate if conditions or mission change.	Accept the Mission Only with Command Endorsement Communicate Risk vs. Gain to Chain of Command. Implement Controls and continuously evaluate conditions and mission for change.
High Risk	Accept the Mission Only with Command Endorsement. Communicate Risk vs. Gain to Chain of Command. Implement Controls and monitor Risk Factors. Continuously evaluate conditions and mission change.	Accept the Mission Only with Command Endorsement. Communicate Risk vs. Gain to Chain of Command. Implement Controls and monitor Risk Factors. Continuously evaluate conditions and mission change.	DO NOT Accept the Mission. Communicate to Chain of Command. Wait until Risk Factors change or Controls are available to warrant Risk exposure.

NOTES:



RISK ASSESSMENT MATRIX (RAM)

- The purpose of assessing hazards is to determine the risk level, so one can determine the need for mitigation and/or whether the mission should continue.
- **Three characteristics of the hazard:**
 1. Severity (possible consequences)
 2. Probability (likelihood that the hazard will cause a mishap)
 3. Exposure (how often or how many people are in contact with the hazard)



Determining the Severity (left row), and intersecting with Probability column, determines the Risk Assessment Code; 1-4.

RISK ASSESSMENT MATRIX			PROBABILITY					
			Likelihood of Mishap if Hazard is Present					
			A Almost Certain (Continuously experienced)	B Likely (Will occur frequently)	C Possible (Will occur several times)	D Unlikely (Remotely possible but not probable)	E Rare (Improbable; but has occurred in the past)	
SEVERITY	Consequence if Mishap Occurs	Catastrophic (Death, Loss of Asset, Mission Capability or Unit Readiness)	I	1	1	1	2	3
		Critical (Permanent Disabling Injury or Damage, Significantly Degraded Mission Capability or Unit Readiness)	II	1	1	2	3	3
		Moderate (Non-Permanent Disabling Injury or Damage, Degraded Mission Capability or Unit Readiness)	III	2	2	3	4	4
		Negligible (Minimal Injury or Damage, Little or No Impact to Mission Capability or Unit Readiness)	IV	3	3	4	4	4
			Risk Assessment Codes (RAC)					
			1=Extremely High 2=High 3=Medium 4=Low					

Risk Assessment Codes (RAC)

RAC Value	Risk Category	Action Required
1	Extremely High	Stop, Immediate Correction
2	High	Consider Stopping, Urgent Correction
3	Moderate	Corrective Attention Needed
4	Low	Possible Acceptance



Risk Assessment Codes (RAC)

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The RAC quantifies the risk level associated with the hazard's probability and severity ratings. Risk can fall into one of four levels. Each of the four levels requires specific actions to mitigate. The RAC helps to prioritize hazards such that those that pose the greatest risk can be addressed first. Moreover, quantifying risk enables personnel to reconsider the impact of their mitigation efforts as they develop controls.



Hazard Assessment and Mitigation Worksheet

Platform		Mission	
----------	--	---------	--

Task	
------	--

What can go wrong?	
--------------------	--

Why? (Hazard)	S	P	RAC

Mitigations	S	P	RAC

Why? (Hazard)	S	P	RAC

Mitigations	S	P	RAC

Representative sample sheet for hazard assessment and appropriate steps for mitigation.



Sample Hazard Assessment and Mitigation Problem

- **Asset:** 47' Motor Life Boat (MLB) **Mission:** Tow
 - What can go wrong? Tow line in screws.
 - Why? (Hazard) Excessive slack in tow line.
 - Mitigations:
 - Monitor line tension
 - Maintain speed and heading
 - Why? (Hazard) Displacement of MLB stern
 - Mitigations:
 - Limit tows to less than XX seas
 - Monitor line orientation
 - Why? (Hazard) Line parted or snapped
 - Mitigations
 - Inspect line for wear



Sample problem, page 2; Apply Severity and Probability from Risk Assessment Matrix

RISK ASSESSMENT MATRIX			PROBABILITY					
			Likelihood of Mishap if Hazard is Present					
			A Almost Certain (Continuously experienced)	B Likely (Will occur frequently)	C Possible (Will occur several times)	D Unlikely (Remotely possible but not probable)	E Rare (Improbable; but has occurred in the past)	
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		Negligible (Minimal Injury or Damage, Little or No Impact to Mission Capability or Unit Readiness)	IV	3	3	4	4	4
			Risk Assessment Codes (RAC)					
			1=Extremely High 2=High 3=Medium 4=Low					

Note the mitigations for stern displacement and line wear mitigation, are the Risk Assessment Codes correct?

Hazard Assessment and Mitigation Worksheet						
Platform	47MLB	Mission	Tow			
Task	Towing sailboat					
What can go wrong?	Tow line in screws					
Why? (Hazard)		S	P	RAC		
Too much slack in line	III	C		3		
Mitigations		S	P	RAC		
Monitor line tension	III	D		4		
Maintain speed and heading	III	D		4		
Why? (Hazard)		S	P	RAC		
Displacement of MLB stern	III	C		3		
Mitigations		S	P	RAC		
Limit tows to less than XX seas	III	D		3		
Monitor line orientation	III	D		3		
Why? (Hazard)		S	P	RAC		
Line parted or snapped	III	D		4		
Mitigations		S	P	RAC		
Inspect line for wear	III	D		4		



TRAINING

1. Personnel involved with planning, conducting, supervising, and monitoring activities that can pose safety risks to personnel and equipment must complete the Introduction to Risk Management training available on the Learning Management System, course 100202.
2. Personnel not in the above category are required to take DHS Preparedness: IS454; Fundamentals of Risk Management.
3. Aviation personnel are required to take Crew Resource Management training, both initial and annual refresher; which includes Risk Management training.
4. Following completion of Intro to Risk Management course, individuals listed in paragraph 1 must complete a facilitated discussion of case studies that illustrate the use of TCT principles. This can be fulfilled by taking the annual TCT refresher training.



Summary

- **One year for implementation, complete by March 2019**
- **Surface Operations personnel should complete Introduction to Risk Management.**
- **Others should complete Fundamentals of Risk Management, or their operation specific training.**



End of presentation, thanks for your participation!

Please direct questions and comments to:

Dan Cole – Division Chief, Surface Operations
(907) 299-1929 danny.cole@cgauxnet.us

Rick Saunders – Deputy Director, Response Directorate
(408) 694-8240 rick.saunders@cgauxnet.us