

# Raytheon Technical Services Company

## Integrated Supply Chain – Logistics

Air  
Land  
Sea  
Space  
Cyberspace

Innovation. In all domains.

Lance Lammott

Manager III, ISC Logistics

Indianapolis, IN

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# Raytheon Sustainability Vision

## Our commitment to future generations

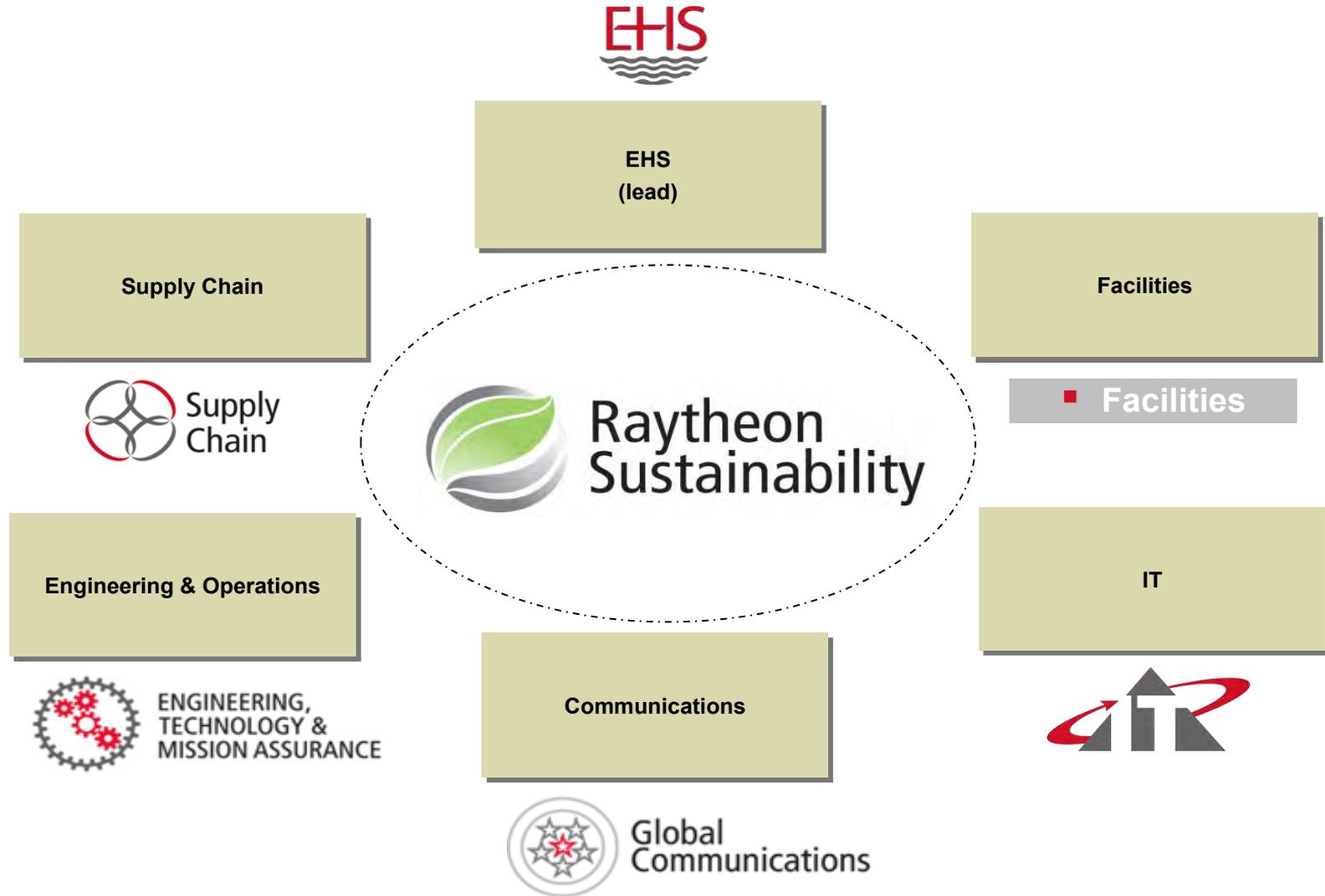
*Engaging our employees, customers, suppliers and communities to protect our environment and conserve natural resources*

### Strategic Focus Areas:

- Energy Efficiency
- Greenhouse Gas Emission Reductions
- Recycling and Waste Minimization
- Water Conservation
- Design for Sustainability
- Eco-friendly Procurement
- Innovative Environmental Solutions



# Raytheon Sustainability Team



**In Support of Supply Chain Sustainment Strategies**

# ISC Logistics

ISC Logistics Sustainability Project Matrix					
	RTSC	IDS	IIS	RMS	SAS
<b>Returnable / Durable Packaging</b>	Lance Lammott Steve Young	Steve Klemarczyk		Jose Sanchez	Noah Villareal
Reuseable Pallets	Gary Thompson				
Supplier Packaging					
<b>Fleet Management / GHG Emmissions</b>	Steve Young	Steve Klemarczyk	Karrie Segobiano		Jim Dougherty Ed Rutter
Vehicle replacement				Carlos Huerta	
Alternative Fuels				Carlos Huerta	
Driver Training				Jim Edwards	
<b>Recycling &amp; Waste Reduction</b>	Lance Lammott Steve Young	Tammy Enax	Karrie Segobiano	Jose Sanchez	Tim Hammond Carol Kaplan
Packaging Reuse	Sherry Stevens				
Bio-Degradable Packaging					
ESD bag reuse					
<b>Electronic Process / Automation</b>	Lance Lammott Steve Young	Tammy Enax	Tuan Nguyen		Belisa Johnson
Document Scanning	Jeremy Williams				



**RTSC lead Business lead - Indianapolis focused team**

# Enterprise-wide Green Logistics Strategy



# Returnable / Durable Packaging

## Future State Vision:

Leverage returnable / durable packaging within Raytheon facilities to promote a safe, clean Logistics operating model with minimal impact on the environment. Future state will include 100% returnable / durable packaging within Logistics operations, standardize packaging (pallet & ESD packaging), Supplier (inbound) returnable packaging (support with positive business case) and compliance with contractual returnable packaging requirements.

Strategic Initiative	Closed Loop Returnable Packaging	Plastics – Pallets - Metal	Supplier Inbound Returnable Packaging	Contractual Packaging Requirements
Description	Implement returnable packaging for specific programs that ship regularly between RTN sites.	Utilize plastic or metal pallets (standard or custom) for internal material movement & storage.  Applicability for both Logistics & Manufacturing operations.	Leverage SEAC process to promote supplier inbound returnable packaging strategy based on positive business case.	Utilize customer furnished reusable shipping containers for storage and shipment of government assets.

# Logistics Green Strategy Execution

## RETURNABLE – DURABLE PACKAGING

Return wood pallets received with packaging supplies from local vendors for their reuse.



Utilize Reusable containers both plastic, wood and fiberboard wherever possible. Sources of containers come from unpacking incoming items or government supplier. (Jackal, Sydet, Lau)



Utilize plastic totes and handling fixtures to delivery and pick up material from local vendors that are performing machining & plating operations.



# Electronic Process / Automation

**Future State Vision:**

**Eliminate waste associated with manual paper processes and replace with electronic alternatives in support of enterprise green strategies.**

Strategic Initiative	<i>Document Scanning &amp; Storage Solutions</i>	<i>Digitized Pack / Ship Instructions</i>	Paperless Receiving Process
Description	<p>Assess current state documentation storage practices and review requirements (Logistics)</p> <p>Identify best practices for electronic scanning and storage solutions</p> <p>Implement enterprise best practice</p>	<p>Assess current state pack ship applications and identify best practices for enterprise deployment</p> <p>RayPack (RMS), RAPID (SAS), RDS (IDS)</p> <p>Implement enterprise best practices</p>	<p>Define Paperless Process for Receiving designed to lean out paper processes</p> <p>Utilize Auto-identification Technology (AIT) that leverages existing TMS (2D-Bar Coding) and material tracking technology platforms (including RFID technology)</p>

# Logistics Green Strategy Execution

## ELECTRONIC PROCESS / AUTOMATION

Scanning pdf copies of Acceptance documents into a Contracts Eroom. Looking at other areas we can utilize a scanned copy instead of a hard copy.



Using paperless initiatives – RAYTRAK for receiving materials, and movement tracking.

**RAYTrak**



# Recycling / Waste Reduction / Awareness

## Future State Vision:

Promote and support Raytheon Recycling and Waste prevention programs within the Logistics organizations. Promote the 3Rs (Reduce, Reuse and Recycle) to reduce carbon footprint in the environment. Logistics departments will recycle 100% of all recyclable items and/or use bio-degradable items, wherever possible.

**100%  
Recyclable  
Items**

Cardboard  
Wood  
Metal  
Bubble wrap  
Foam

**Bio-Degradable  
Packaging  
Supplies**

Shrink Wrap  
Tape  
Bubble Wrap

**Reduce /  
Reuse**

Reusable  
Packaging  
Reusable  
Containers  
Metal Pallets  
Print Smart:  
- Paper  
- Ink  
- Office Equip.

**Energy  
Conservation**

Dock Sealers  
Heat & A/C  
Activators  
Lighting & Motion  
Sensors  
PIT Battery  
Technology  
Energy Citizens

**Personal Green  
Accountability**

Awareness  
Campaigns  
Driving  
Sustainability at  
Work & at Home  
(Recycling,  
Community  
Outreach)

# Logistics Green Strategy Execution

## RECYCLE

Gather broken & non repairable pallets and scrap wood for recycling.



YTD 8194 lbs



Gather non-reusable fiberboard for recycling.

YTD 5113 lbs



# Logistics Green Strategy Execution

## WASTE REDUCTION

Gather & utilize scrap packaging materials for use in other packaging applications including using cushioning as void filler for larger containers.



Set up area where excess office supplies are accessible for reuse Raytheon employees



# Fleet Management & GHG Emissions

## Future State Vision:

Actively managed Raytheon's enterprise-wide vehicle and industrial truck fleet in support of Raytheon's goal of reducing GHG emissions by 10% between 2010 and 2015.

### *Fleet Rationalization*

Review current state vehicle utilization

Identify targets for GHG / Cost reduction

Obtain customer concurrence

### *Develop a "Selector List" of Low GHG Vehicles*

Collaborate with vehicle and industrial truck providers

Identify lowest GHG models in each vehicle class

Update selection list annually

### *Replace Existing Vehicles & Industrial Trucks with Low GHG Models*

Review replacement opportunities

Assess customer requirements

Fleet managers and customers choose from "Selector list"

### *Implement Preventative Maintenance Best Practices*

All vehicles/ industrial trucks serviced per manufacturers recommendations

### *Educate Drivers & Managers in "Green" Best Practices*

All drivers operating RTN vehicles required to complete LMS training (annually)

Periodic communication

LMS curriculum created & updated

# Logistics Sustainability – RTSC

## Accomplishments and Progress

- Energy Conservation
  - Installed lock out switch for multiple doors within an area to decrease warm air flow to reach primary plant.
  - Utilize Dock door sealers, where applicable
- Clean Air
  - Central Indiana Clean Air Partnership – reduce fleet idling from Transportation providers
  - Implement at Indy facility Q2 2011, may expand to other sites later