Autonomic Logistics Global Sustainment (ALGS)
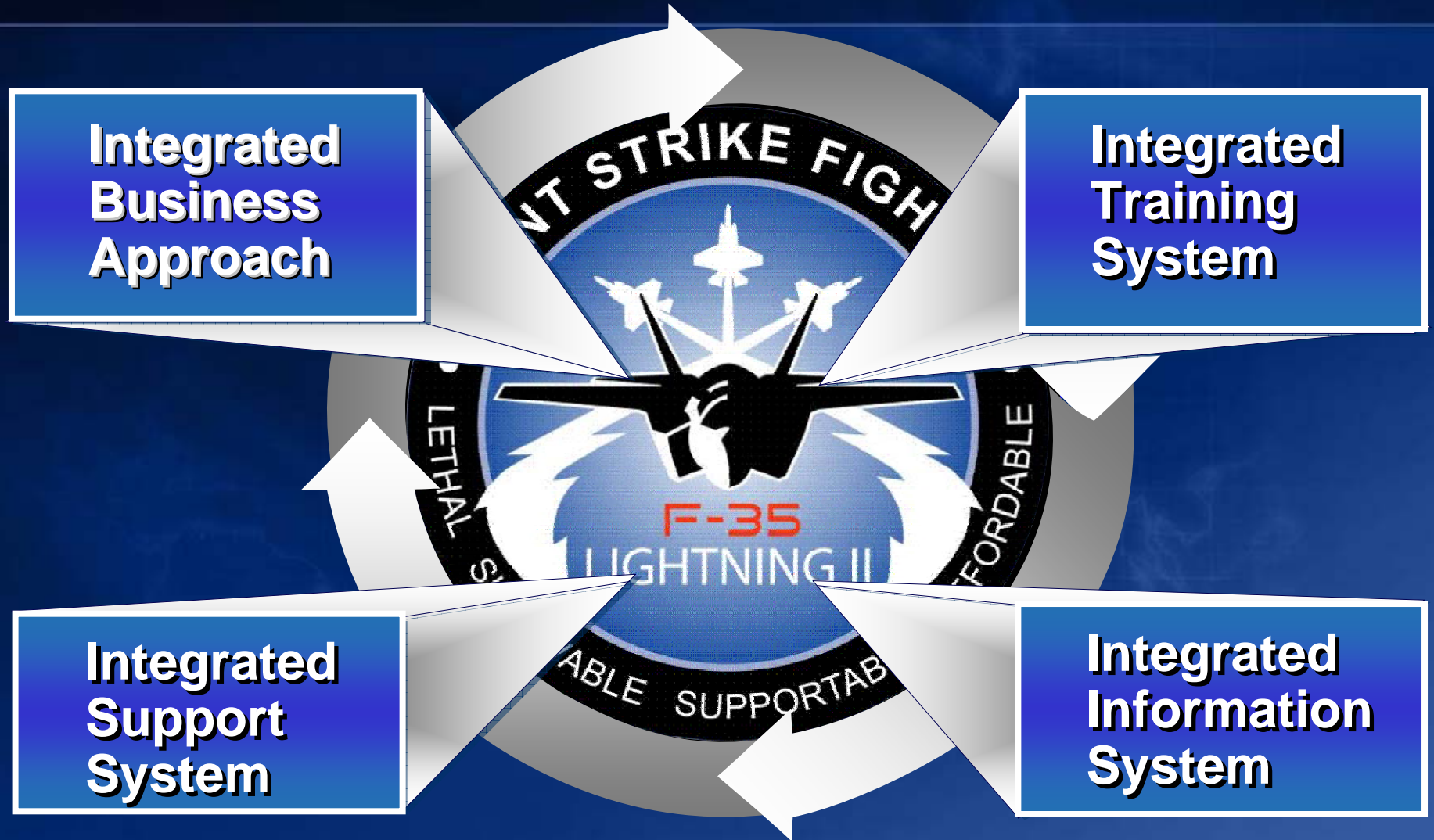## 21st Century Sustainment for the Lightning II

Mr. James Sprang
NDIA National Logistics Conference

LOCKHEED MARTIN

F-35 Sustainment Solution…

Integrated Business Approach

Integrated Training System

Integrated Support System

Integrated Information System

Completely Integrated & Integral to the Aircraft

LOCKHEED MARTIN

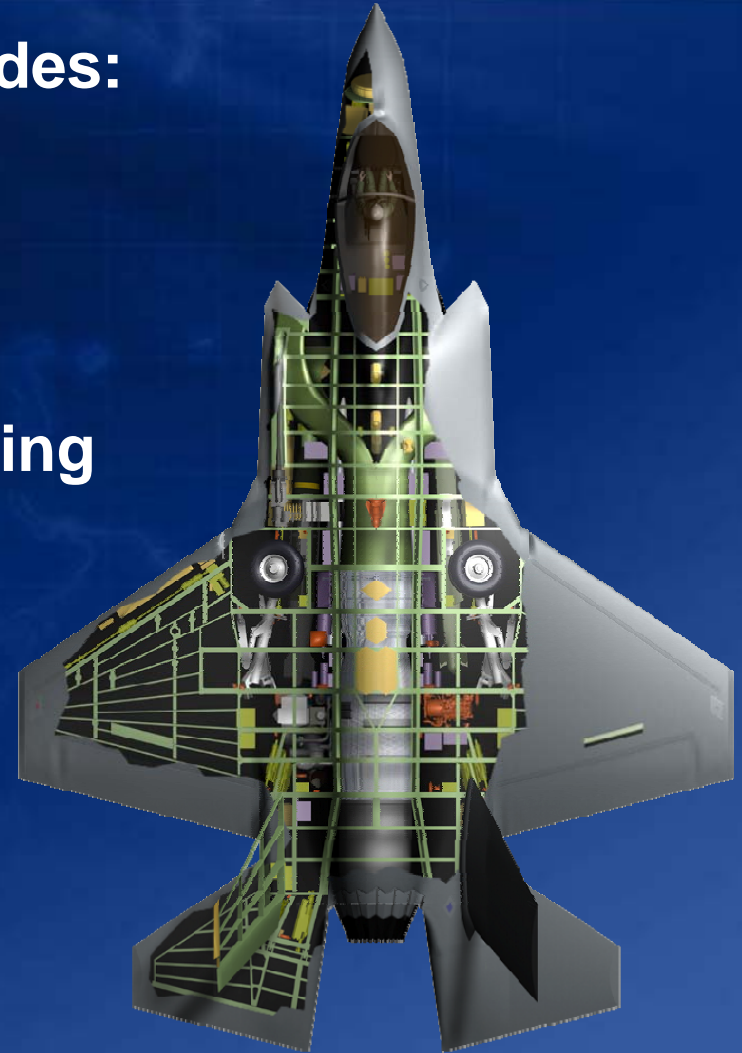# *F-35 Improves Supportability, & Deployability*

- **New Logistics Model**
  - *Revolutionary Integrated Diagnostics*
  - *On-Board Health Monitoring*
  - *Electronic Tech Data*
  - *Portable Maintenance Aids*

Worldwide Support 24 / 7

3

What is Autonomic?

LOCKHEED MARTIN

- **The JSF Autonomic System Provides:**
  - **Failure analysis**
  - **System health monitoring**
  - **System status and health transmission**
  - **In-flight system service re-routing**
  - **Post flight services:**
    - *Correct repair parts*
    - *Support Equipment*
    - *Fuel*
    - *Weapons*
    - *Trained maintainers*

Autonomic Monitoring, Prognostics & Health Mgmt support the F-35

LOCKHEED MARTIN

Integrated Information System

TRADITIONAL

- **Non-Integrated Info Systems**
- **Precautionary LO Repairs**
- **No Reach Back to Formal Training**
- **Multiple Info / Support Systems Not Integrated**

F-35 ALIS

- **Total Asset Visibility**
- **LO Health Assessment System**
- **Connectivity to Training Centers**
- **Integrates OEM Engineering, Supply, and Training With the Customer**
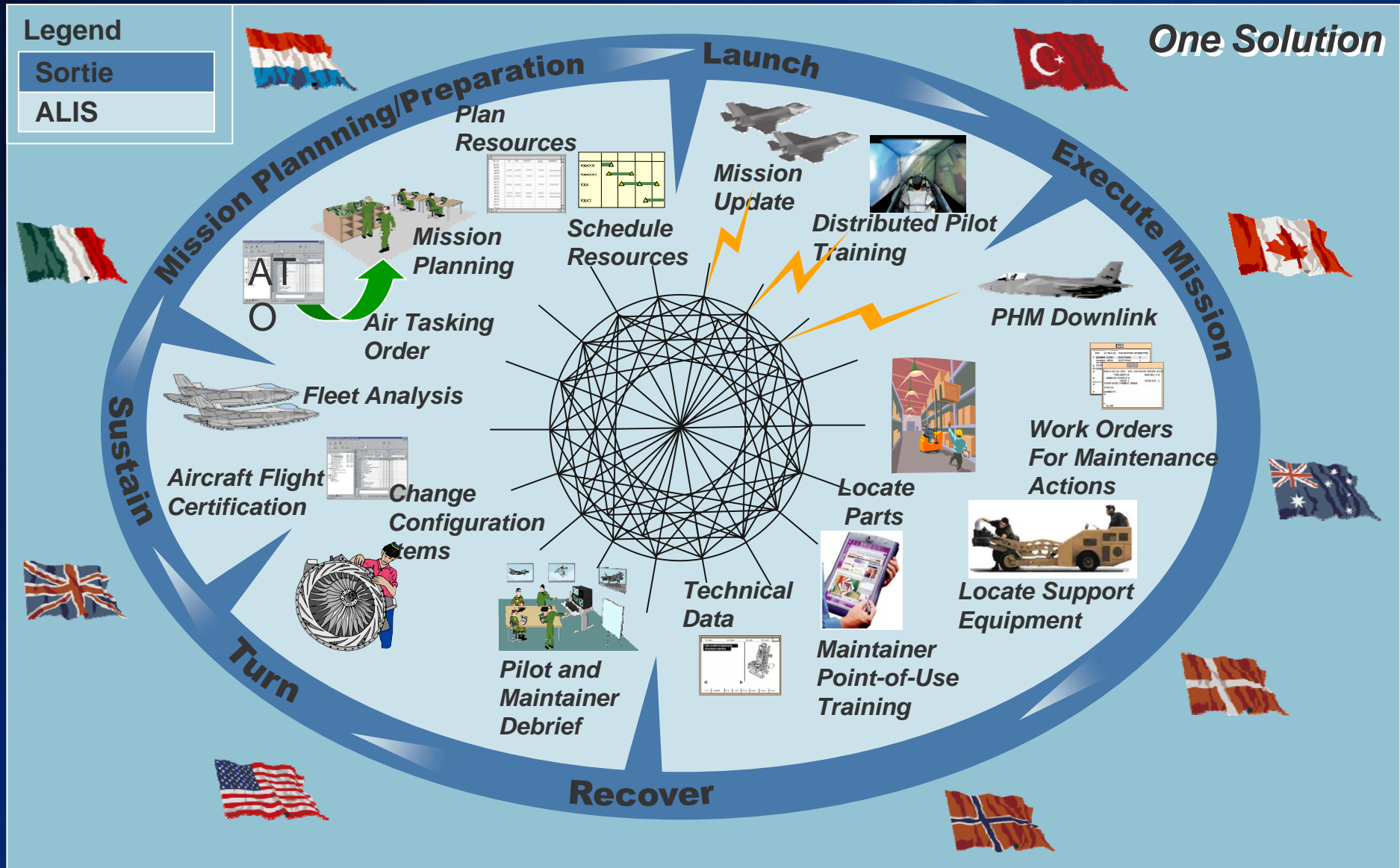
BENEFIT

- **Integrated Mission Planning / Maintenance / Supply / Training / Qualifications / Aircraft Info**
- **Unclassified LO Confidence Reports**
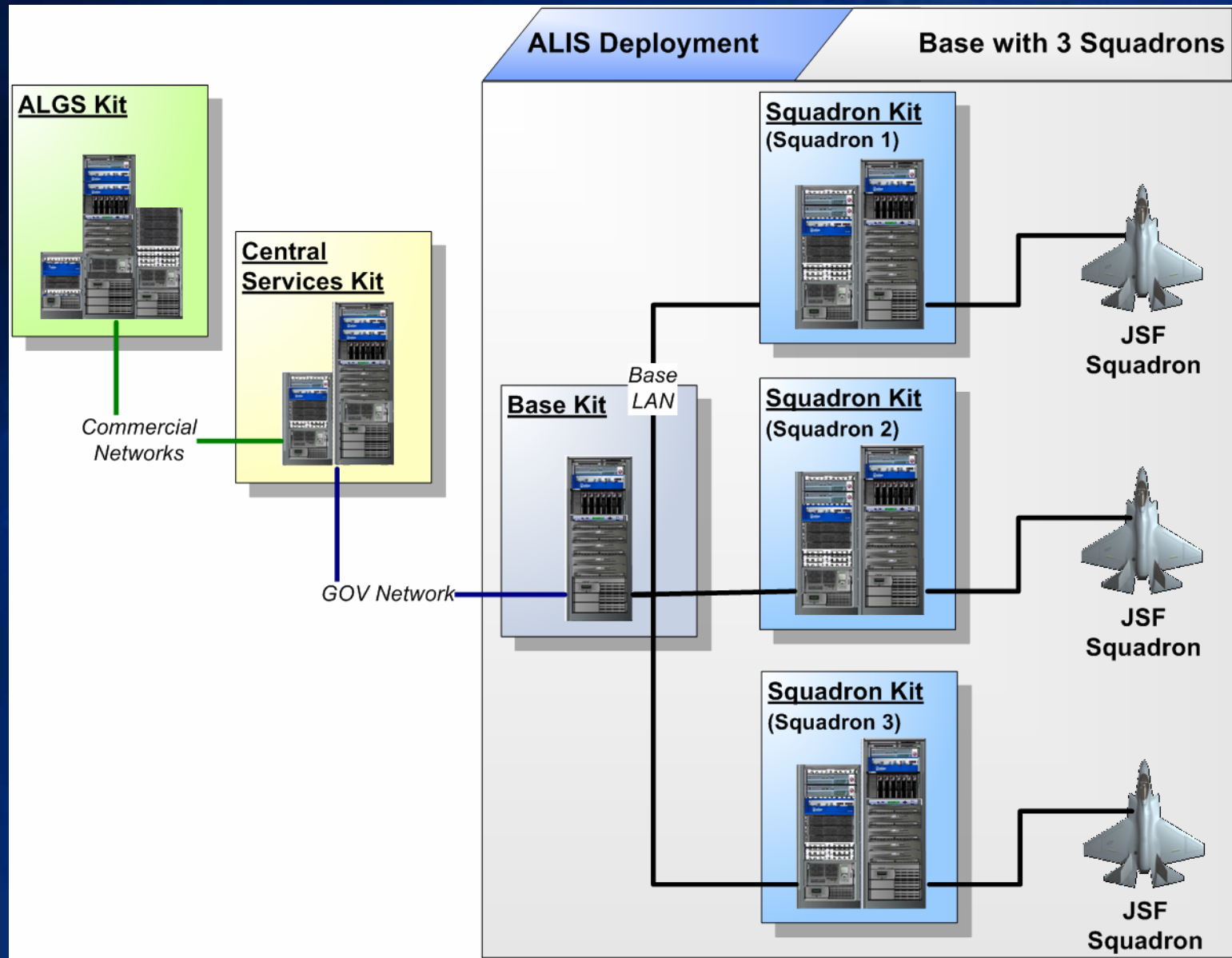- **Data / Procedure Currency**

Most Current Information Continuously Available

LOCKHEED MARTIN

ALIS Supports All Phases of Sortie Generation

Legend

Sortie
ALIS

One Solution

Mission Plannning/Preparation

Launch

Execute Mission

Sustain

Turn

Recover

Plan Resources

Mission Update

Distributed Pilot Training

Schedule Resources

Mission Planning

Air Tasking Order

PHM Downlink

Fleet Analysis

Work Orders For Maintenance Actions

Aircraft Flight Certification

Change Configuration Items

Locate Parts

Locate Support Equipment

Pilot and Maintainer Debrief

Technical Data

Maintainer Point-of-Use Training

ALIS Configuration Example

LOCKHEED MARTIN

ALIS Summary

LOCKHEED MARTIN

- **Initial ALIS Design Complete; Architectural Framework Established**

- **Provides:**
  - *Air Vehicle Operational Support & Maintenance*
  - *Supply Chain, Support Equip Mgmt*
  - *Distributed Training*
  - *Integration with government infrastructures*

- **Currently supporting the Flight Test air-vehicles**

ALIS is the Logistics Enabler for the F-35

Questions?