

# Precision Strike Association Brief

CTOL

STOVL

CV



**17 March 2015**  
**RADM Mahr, USN**  
Deputy Program Executive Officer  
F-35 Lightning II Program



# BLUF

- **F-35 Provides**

- A weapons customer base of ~3000+ advanced, multi-role stealthy strike fighters, with long range active passive multi-spectral sensors, with four internal and seven external weapon stations

- **F-35 Needs**

- Weapons with longer range, shorter time to kill, survivable and JOINT to take advantage of its sensor capabilities, and that can be carried both internal and external
- Weapons that are more affordable and easier to integrate
- Have international release considerations built into the design from the beginning.
- Launch Acceptable Region (LAR) updates direct into OFPs
- Authoritative weapon models for simulators
- Network models for distributed training





# F-35 - It's a Coalition Composed of 3000+ AC

Economies of scale is the primary affordability driver



**F-35: The Most Prolific Modern Fighter Since the F-4 and F-16**





# What F-35 Provides to the Combatant Commander

Day One Stealthy Long Range, Interoperable, Multi-Role Coalition Strike-Fighter which can be deployed from Main Operating Bases, Aircraft Carriers, "L" Class Ships and Austere Air Bases

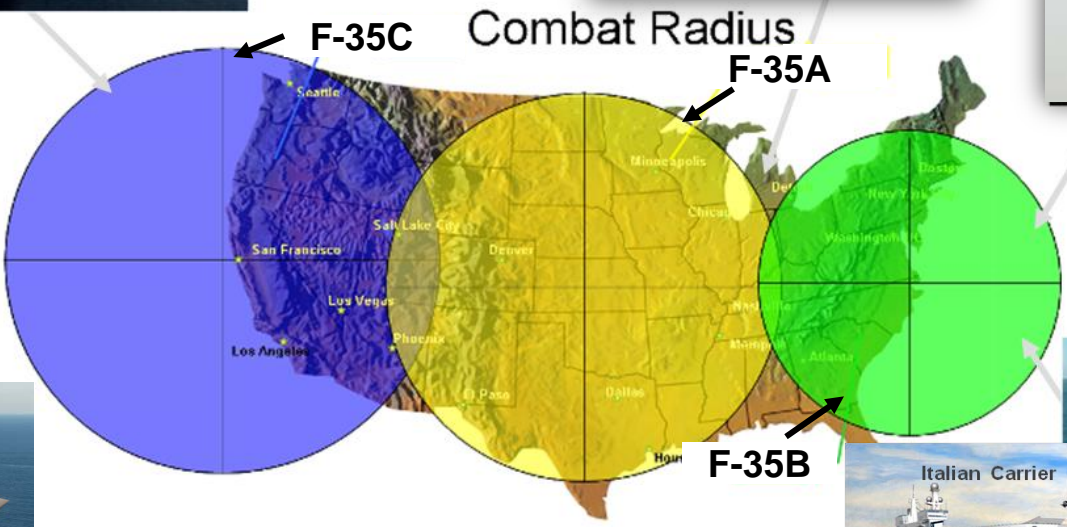
USN Nimitz Class Carrier



Main Operating Base



USMC Austere Basing



UK Carrier

USMC "L" Class Ship



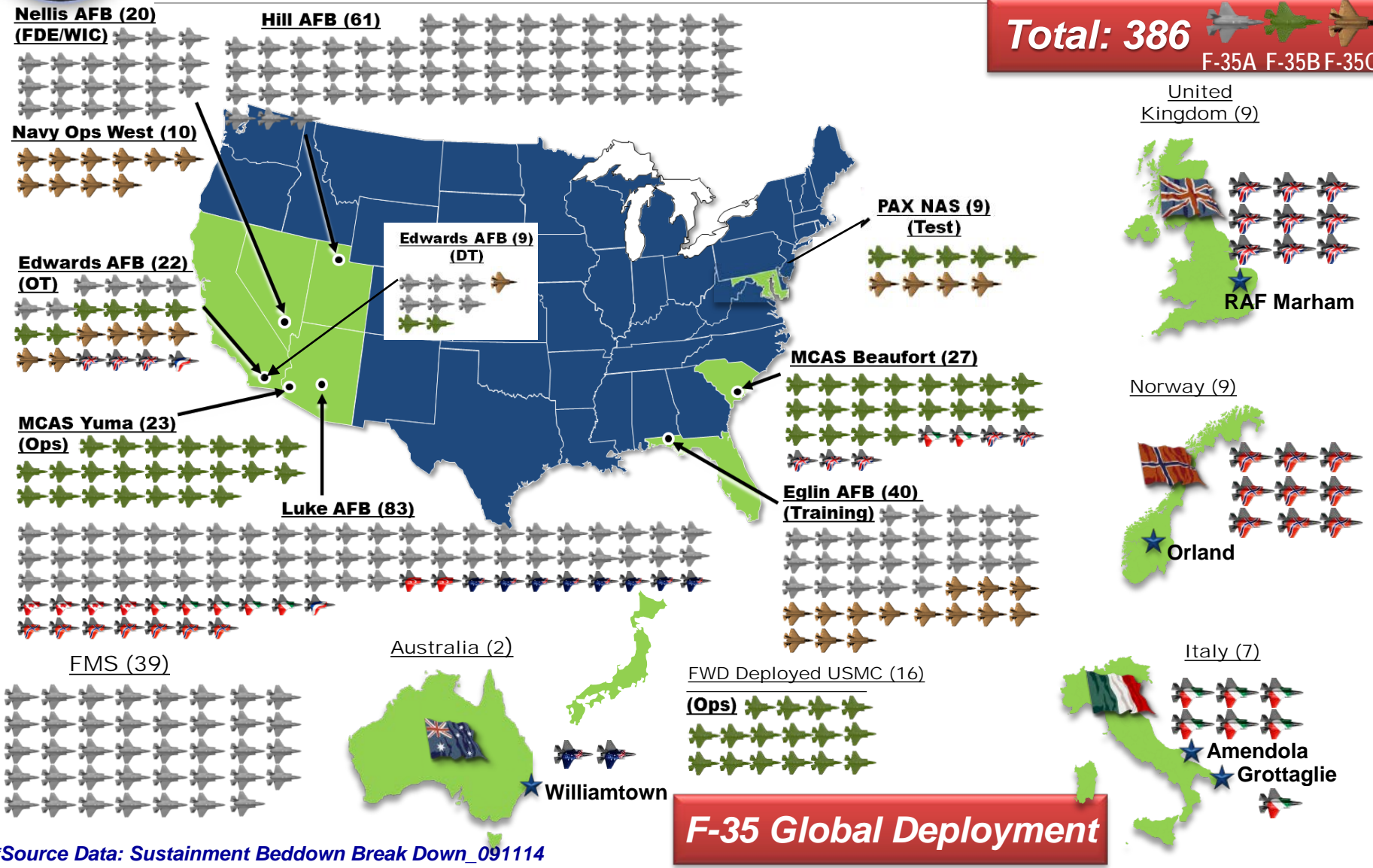
Italian Carrier





# F-35 Bed Down Through 2018

**Total: 386**     
 F-35A F-35BF-F35C



**F-35 Global Deployment**

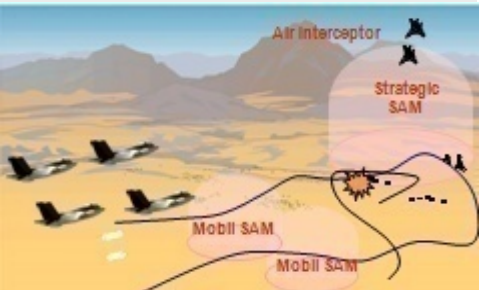
\*Source Data: Sustainment Beddown Break Down\_091114





# F-35 Capability at 2018

## AI / Strategic Attack (Fixed, Stationary, Mobile Tgts)



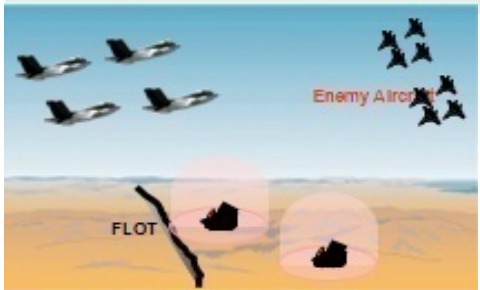
## Close Air Support (Precision Day/Night Adv WX)



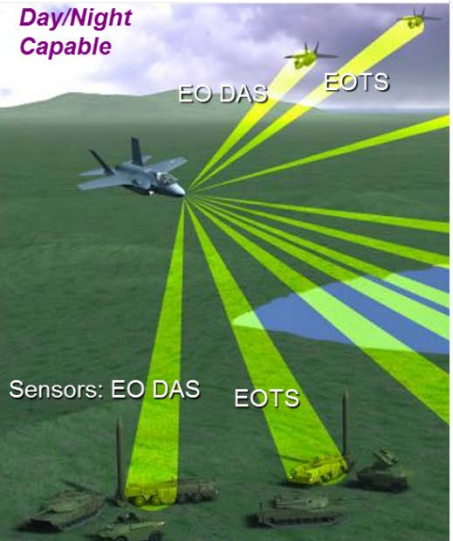
## Suppression/Destruction of Enemy Air Defenses (SEAD/DEAD) (Strategic & Tactical)



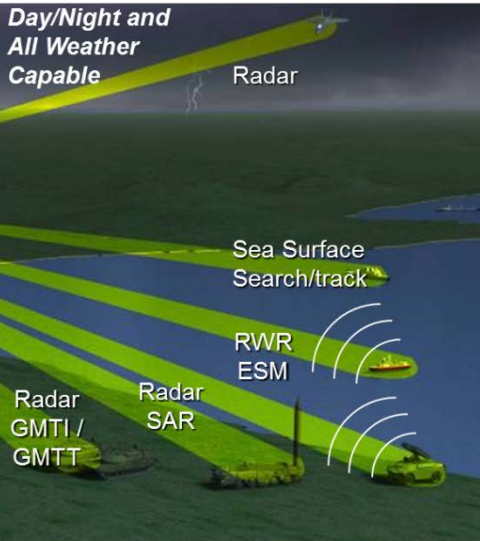
## Offensive / Defensive Counter Air



### Day/Night Capable



### Day/Night and All Weather Capable

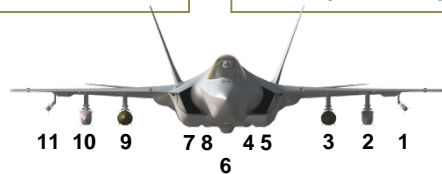


Target Class: All Classes      Moving      Relocatable      Emitting

Increasing Range

## Weapons Cleared (Internal & Some External):

F-35A	F-35B	F-35C
AMRAAM C (4 Int)	AMRAAM C (4 Int)	AMRAAM C (4 Int)
AIM-9X (2 Ext)	AIM-9X (2 Ext)	AIM-9X (2 Ext)
Internal Gun	Gun Pod (Ext)	Gun Pod (Ext)
GBU-31 JDAM 2,000 lb (2 Int)	Gun Pod (Ext)	Gun Pod (Ext)
GBU-12 Paveway II 500 lb LGB (2 Int & 4 Ext)	GBU-32 JDAM 1,000 lb (2 Int)	GBU-31 JDAM 2,000 lb (2 Int)
SDB-I (8 Int)	GBU-12 Paveway II 500 lb LGB (2 Int & 4 Ext)	GBU-32 JDAM 1,000 lb (2 Int)
		GBU-12 Paveway II 500 lb LGB (2 Int & 4 Ext)
		JSOW (2 Int)



### UK Unique\*

- Paveway IV (500#) (2 Int & 4 Ext)
- ASRAAM (2 Ext)

# Full Mission Capability



# Weapon Carriage

## Internal Weapon Bays

- Combined A-G and A-A
- 2000 lb on F-35 A and F-35C
- 1000 lb on F-35B
- Internal Adapters

## SMS Hardware I/O Structure

- Provides Legacy Non-1760 Interface
- Provides Growth Flexibility for Future Stores

## Non-Pyrotechnic Suspension & Release Equipment

## Single Point Safing From Outside Cockpit

## GAU-22 25mm Gun

- Internal F-35A
- Missionized F-35B & F-35C

## Centerline Station On All Versions

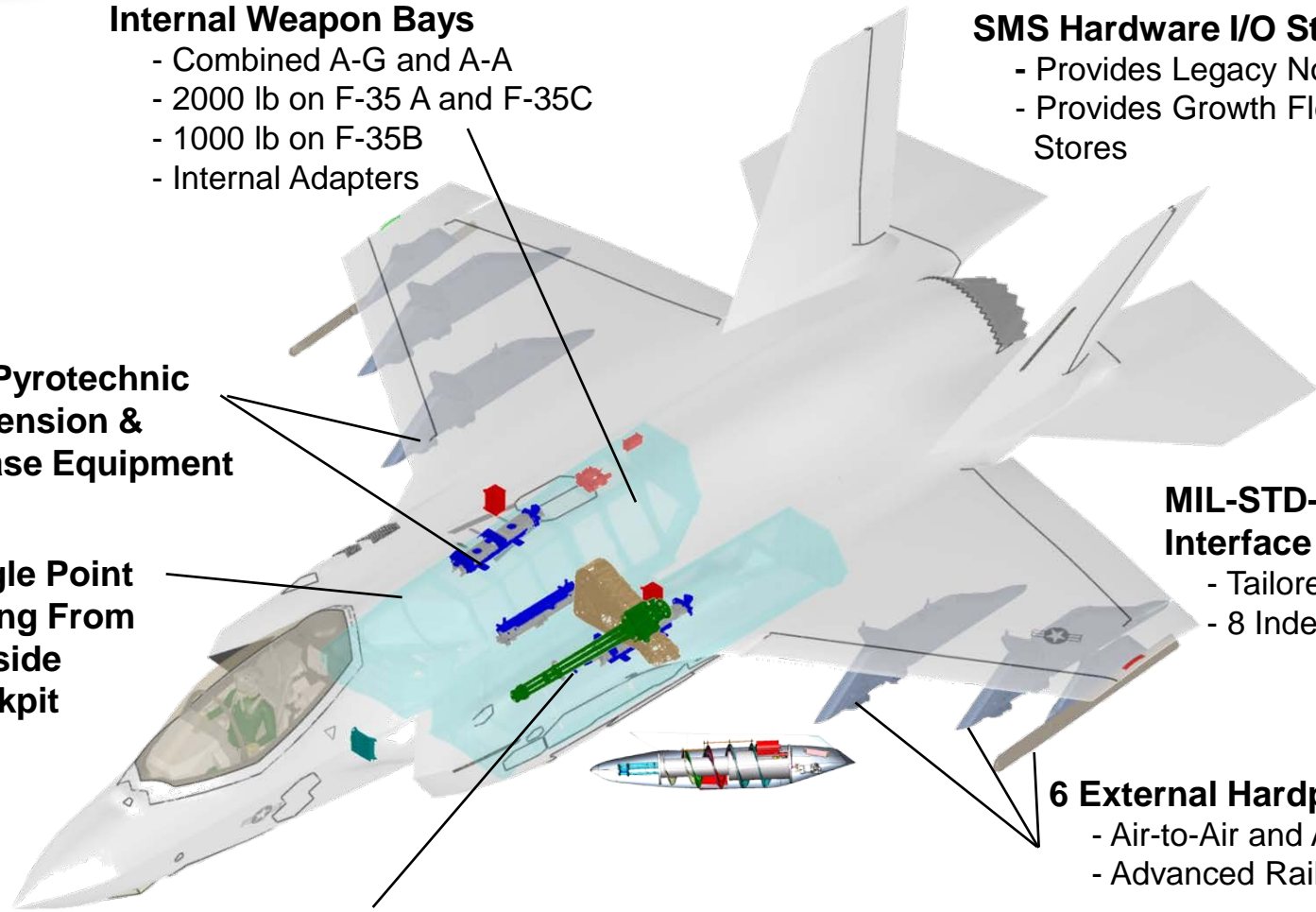
- Structural & Tailored F-35B Mil-STD-1760 Class 1
- Missionized Gun F-35B & F-35C

## MIL-STD-1760C Class 1 Interface at A/G Stations

- Tailored Class 1 at A-A
- 8 Independent '1553 Channels

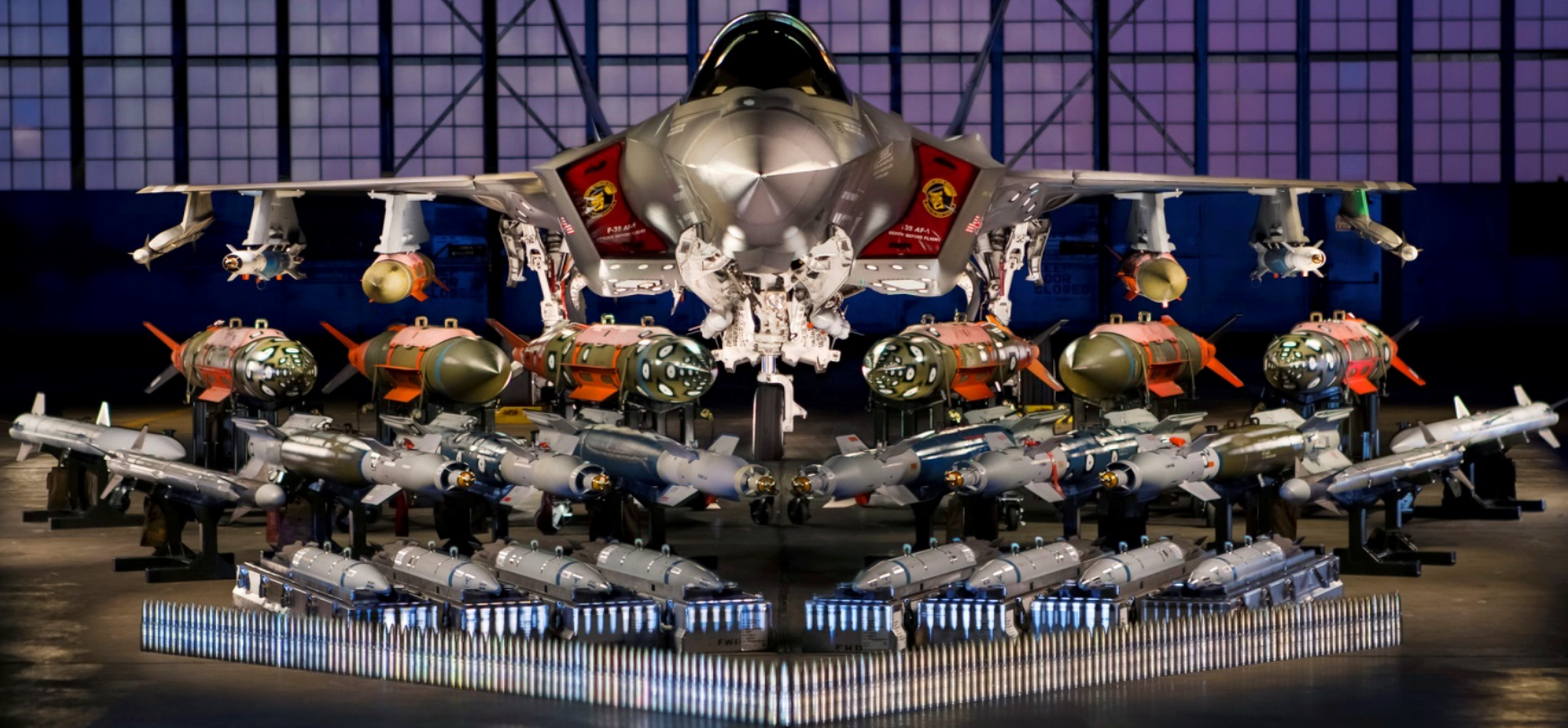
## 6 External Hardpoints

- Air-to-Air and Air-to-Ground Pylons
- Advanced Rail Launchers and AME





# SDD Weapons







# Proposed Weapon Growth



AIM-9X Block 2 'Full'

JSOW C-1 "Basic"

GBU-54 / GBU-38

Norway-Joint Strike Missile (JSM)

UK- SPE@R 1- Penetrator

Turkey - HGK

Turkey - SOM

Net Enabled Weapons

Small Diameter Bomb II

JSOW C-1 "Full"

JSOW External

UK - Meteor

UK - SPE@R Seeker

UK - ASRAAM New Build

AIM-9X Block 3

Expanded Internal AA Carriage

UK - SPE@R 3

**Weapon integration requests likely to exceed the capacity. Actual capability delivery will depend on weapon maturity, funding, development and certification capacity**

# Questions?

