



# SRB Return to Flight Camera Activities

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## Overview

- Program Direction
- Flight History
- Capabilities Summary
- Future Activities



Solid Rocket Booster Project  
Shuttle Propulsion Office  
George C. Marshall Space flight Center





# Return to Flight Camera Activities

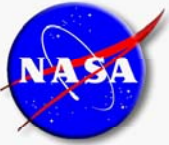
## Program Direction

- ❑ Program team to investigate in-flight camera coverage for STS-114
  - Maximize use of existing assets and off-the-shelf technologies
- ❑ SRB and ET Projects tasked to provide cost & schedule for single and dual camera options

## SRB Flight History

- ❑ SRB Provided camera coverage during the ET Intertank foam investigation (STS-95)
- ❑ Utilized existing parachute video recorder & camera

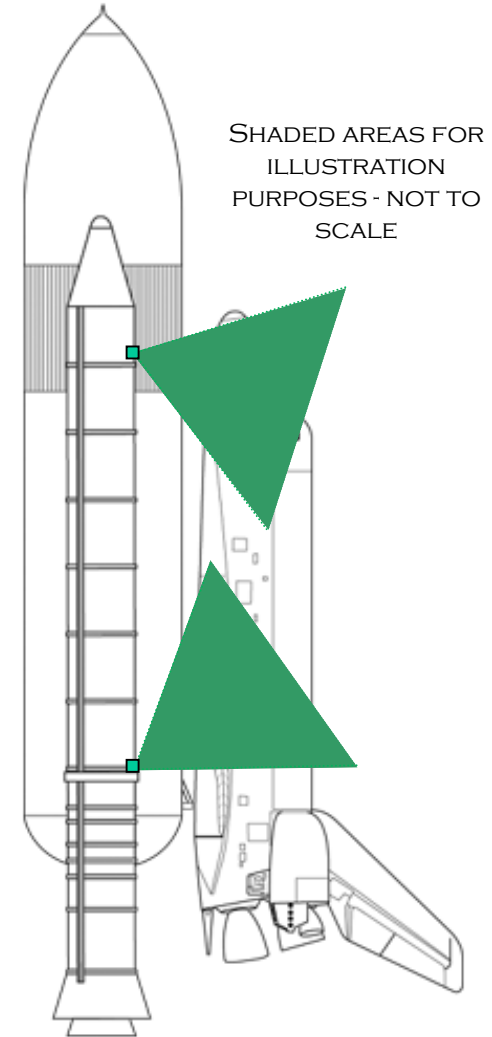




# Capabilities Summary

## STS-114 Camera Locations

- ❑ Investigating two locations for STS-114
- ❑ Forward Skirt
  - Orbiter Nose, Bi-Pod attach, partial ET Inter-tank
  - Damage assessment & debris origination view
- ❑ ET Attach Ring
  - Orbiter wing acreage & leading edge, and Main Landing Gear door
  - Provides damage assessment view





# Capabilities Summary

## Camera Views from SRB

External Tank Attach Ring  
59° field of view



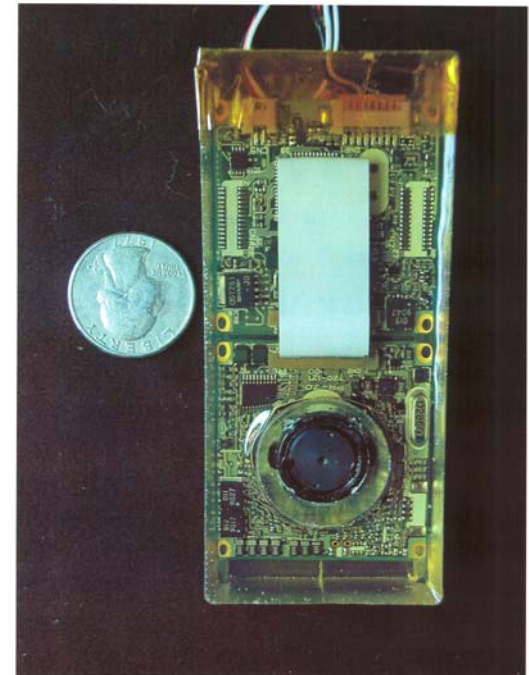
Forward skirt  
59° field of view





# Future Activities

- ❑ Work with Program to develop optimal views utilizing 3-D models
- ❑ Investigate new camera technologies
  - Single-board, pin-hole & higher frame rate
  - ED12 providing technical expertise
- ❑ Develop long-term plan
  - Solid state recorders
  - Pre-launch verification
  - Telemetry download capability



SINGLE-BOARD CAMERA ENCASED IN POTTING TO MINIMIZE VIBRATION/SHOCK EFFECTS & POSSIBLE DEBRIS (DEVELOPED AT MSFC)

