SNL Contract Tasks

- Task 1 Plane Impacts on Storage Casks and Transport Packages
  - Task 1.1 [redacted] Impacting HI-STORM Cask
  - Task 1.2 Small Plane Impacting HI-STORM
  - Task 1.3 Simplified [redacted] Model for NRC Use
  - Task 1.4 [redacted] Impacting NAC-UMS
  - Task 1.5 Small Plane Impacting NAC-UMS
  - Task 1.6 Small Plane Impacting Non-spent Fuel Packages

1.1 b
1.1 c Thermal

SNL Contract Progress

- Evaluation
  - Structural
    - Codes - CTH (ZAPOTECH - under development)
    - Speed
    - HI-Storm
      - Angles of impact
      - Models
    - NAC UMS
      - Just starting
      - Models

SNL Contract Progress

Ex 2

- Evaluation
  - Thermal
    - Flame Temperature
    - Jet Fuel Burn Rate
    - Pool Depth
    - Fire Duration
    - Fully Engulfing
    - Partially Engulfing

SNL Contract Progress

- Evaluation
  - Radiological/Dispersion
    - Melcor
      - Heat Transport
      - Zirconium Oxidation
        - » Fission Product Release
        - » Added Heat Source
    - MAACs
      - MACCS2_Mills
      - Benchmarked to actual fires

1.1	B.	PRONTO (Lagrangian Code)	
1.1	C	PRONTO	
1.2	Database of the small planes prepared.	N/A	The database appears to be complete.

OTHER ISSUES:

1. Verify that the Computer codes PRONTO and CTH are validated for the present application.
2. SANDIA needs to determine the best estimate behavior and tthe potential variation in results.
3. Effect of the aircraft impact on the fuel tank and the extent of the fuel which may cause fire.

SUMMARY:

Based on the the HI-STORM MPC

SNL Contract Progress

- Small Plane Analyses
  - Plane
  - Speed
  -) Ex2