

2.2 Second Drop Tower Facility Check List			Technician:		
Date:			Engineer:		
Total Facility Drop No:			Rig:		
Shock Data	1.	2.	3.	4.	5.

Pre-Drop Check List

- ____ 1. At the beginning of a shift inspect air bag system (condition of bag, blower, vent doors, etc.). Inspect drop cable for wear or fraying. Clean pin.
- ____ 2. Inspect lifting equipment: hoist, crane, certifications, wire ropes, attach points, lift hooks, and drag shield lift pins.
- ____ 3. Inspect air bag system at mid-shift.
- ____ 4. Verify 2nd floor hoist is clear of drop area.
- ____ 5. Verify experiment weight, balance.
- ____ 6. Verify operations of video monitoring and system data acquisition systems including cameras, monitors, pressure transducer, potentiometers, etc.
- ____ 7. Clear area of personnel not involved with drop test and lock doors on levels 1 and 2.
- ____ 8. Check that cages on levels 3, 4, 6, and 7 are locked.
- ____ 9. Reset Shockrangers.
- ____ 10. Ensure 5th floor moveable hoist and moveable floor section are clear of drop area after hoisting drag shield above railing level, then lock out 5th floor.

Eighth Floor Operation Checklist

- ____ 1. Open air supply and turn on control panel master power. Pressure regulator should be set to 100 psig.
- ____ 2. Start recording of test on facility VCR
- ____ 3. Check that hand valve is in the "vented" position in order to release pressure on the release mechanism cylinder.
- ____ 4. Open release mechanism jaws by hand.
- ____ 5. Activate warning beacon.
- ____ 6. Raise drag shield into place and insert pin into release mechanism.
- ____ 7. Turn hand valve to "Pressurized" position to pressurize release mechanism piston.
- ____ 8. Apply hand force to pin stud to insure proper seating in release mechanism jaws.
- ____ 9. Turn on blower to inflate air bag.
- ____ 10. Lower drag shield onto experiment. Watch for pin slippage.
- ____ 11. Attach electrical connections for computer and experiment.
- ____ 12. Activate program to record bag pressure and door position.
- ____ 13. Collapse spacers under experiment and close all drag shield doors.
- ____ 14. Select drop mode, "Manual" or "Automated Release" on computer.
- ____ 15. Verify air bag is inflated and vent doors are in proper position via video monitor system.
- ____ 16. Check that drop area is clear of obstructions.
- ____ 17. Remove lifting mechanism from drag shield.
- ____ 18. Announce on intercom/paging system that a drop test is in progress.
- ____ 19. Steady package.

Manual Mode

- ____ 20. Turn off blower and press "Release" button one second later to initiate drop.

Automated Release Mode

- ____ 20. Notify researcher to initiate experiment process.

Note: If a safety concern arises during the next step, the drop may be aborted by releasing the "Release" button.

- ____ 21. Press and hold the "Release" button until the drop is initiated.

Post Drop Operation

- ____ 1. Turn off control panel master power and turn hand valve to "vented" position to release pressure on piston.
- ____ 2. Lower lifting mechanism to 1st floor.
- ____ 3. Confirm that lifting mechanism is engaged with drag shield and hoist drag shield package to fifth floor.
- ____ 4. Roll floor back and lower drag shield onto cradle.
- ____ 5. Record shock data.