



MARYLAND NATIONAL GUARD
JOINT FORCE HEADQUARTERS, MARYLAND
ARMY AVIATION SUPPORT FACILITY
WEIDE ARMY HELIPORT, BLDG E4081
ABERDEEN PROVING GROUND (EA), MD 21010-5401

REPLY TO
ATTENTION OF:

NGMD-ARE-AAS

04 October 2022

MEMORANDUM FOR: MD AASF Standardization Council and Leadership

SUBJECT: After Action Review for 13' Electric Long Line (ELL) with Remote Hook

1. Positives

- a. Use allows ground/hookup crew greater flexibility with personnel positioning for the hookup, resulting in increased safety. (ie. HUMVEEs you can stand on the ground next to the HUMVEE so that you don't have to dodge sling legs, drifting helicopter, and equipment in the HUMVEE)
- b. Certain loads are rigged to fly in a specific aerodynamic position (ie. HUMVEE nose low, facing forward during flight). When using a sling set with clevis, the positioning of the load would dictate the heading the helicopter would have to approach the load. Use of the remote hook allows you to approach from any heading to maximize performance, since the swivel will then allow the load to "weather vane" into the wind while transitioning to forward flight.
- c. Reach pendant or other additional types of rigging can rotate the load 90 degrees or more. For a load like the HUMVEE this creates an issue when using the reach pendant because the load wants to fly sideways based off the rigging but is seeking forward flight base of the aerodynamics. This causes twisting in the reach pendant during flight, potentially greater than 360 degrees, which puts the reach pendant at risk of failure or having to be retired due to a 360 degree twist.
- d. Provides greater opportunity for self-hookups which helps facilitate training/missions with reduced manpower or risk to ground crew.
- e. 13" line allows a larger area that the helicopter can be positioned in to accomplish the hookup. This leads to a quicker hookup and less exposure/risk to the ground crew. Resulting in hookups which are less stressful and fatiguing for the flight crew.
- f. The hookup is often less physically demanding for the ground crew since they wouldn't have to hold heavy reach pendants/sling sets above their head while trying to maintain balance in the rotor downdraft. The remote hook when attached to the ELL is much easier to position by ground crew than a 25K sling set and reach pendant.
- g. The use of the swivel on the remote hook would prevent sling legs from "winding up" in flight. Which is known to happen with certain loads such as ISU90s.

- h. Provided the helicopter crew with an additional amount of vertical clearance for additional safety while maintaining the feel of tradition reach pendant and without having to use what most consider a “long line” (ie. 80’-120’)
- 2. Negatives:
 - a. The remote hook could present a hazard as it swings below the helicopter. This can be mitigated by landing the hook next to the load for hookup, using the load for cover/protection, or utilization of a short tag line.
 - b. As with any long line operation additional training is recommended.
- 3. Sling loads for which this ARR were conducted with a UH-60L gusty conditions (5kts, gusting to 15kts, variable direction). The crew mix was 1,500-hour SP, 150-hour PI in RL progression after flight school, and a 500-hour CE who had limited sling load experience.
- 4. For further assistance, please contact the AASF Standardization Office, SFC Charles Savel at charles.d.savel.mil@army.mil or (301) 639-3607.

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