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**Title :** EVALUATION OF GEISS ANTI-GROUNDLOOP LANDING GEAR ON CESSNA O1-E (L-19) AIRCRAFT,



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**Abstract :** An evaluation was initiated to determine the effectiveness of the Geiss anti-groundloop landing gear on the Cessna O1-E (L-19) aircraft. This gear is designed to assist pilots in preventing groundloops and to reduce the amount of aircraft damage when groundloops occur. Three-hundred takeoffs and landings were made with a Cessna O1-E aircraft equipped with the Geiss landing gear. Poor pilot techniques were intentionally utilized to simulate student operation. One-half of the landings were made on sod runways and the other half were accomplished on concrete runways. On 250 landings proper recovery techniques were utilized when groundloops became imminent. No inadvertent groundloops occurred. Fifty intentional groundloops were performed. One-half of the groundloops were accomplished on concrete runways and one-half were performed on sod runways. The airspeed at groundloop inception was 35 MPH IAS or below. The aircraft was not allowed to leave the smooth landing area. The aircraft equipped with the Geiss gear did not sustain any major damage during these 50 groundloops. Use of the Geiss gear did not induce any detectable aircraft handling problems, either in flight or on the ground. The complete Geiss gear installation weighs less than eight pounds and the cost of the item, as quoted by the contractor at the time of this evaluation, was approximately \$250 per aircraft. (Author)

**Descriptors :** \*OBSERVATION AIRCRAFT, LANDING GEAR, AVIATION SAFETY, TAKEOFF, AIRCRAFT LANDINGS, AVIATION ACCIDENTS.

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