



**United States Department of the Interior**  
**National Business Center**  
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In reply refer to: 113A2

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**OAS INFORMATION BULLETIN NO. 03-01**

To: All DOI Aviation Operations  
From: Michael A. Martin, Acting Director, OAS  
Subject: Clarification of Helicopter Load Calculation Method

The Department of the Interior is providing clarification of the helicopter load calculation method. This clarification is specific to HIGE non-jettisonable load operations and the OAS-67, Helicopter Load Calculation, item 7 of the specific instructions which states:

COMPUTED GROSS WEIGHT - Obtain weight from A/C Hover-in-Ground-Effect (HIGE) Chart using External Load Chart if available. Sling load missions and adverse terrain or adverse weather, etc., flights will be computed from A/C Hover-Out-of-Ground-Effect (HOGE) charts.

**NOTE: DO NOT** use performance charts from any source other than that specific (by registration) helicopter's approved rotorcraft flight manual.

The intent of the above language is to use the performance chart that shows the best performance to determine the computed gross weight. In some aircraft, the HIGE charts stop at the maximum internal gross weight limit (commonly known as a "skid limit"), while the HOGE charts extend to the maximum external gross weight limit. If you limit HIGE operations by the use of only HIGE charts, you may not be taking advantage of the best performance before applying the weight reduction. It is perfectly acceptable to use a HOGE chart to determine the best performance for either HIGE or HOGE operations (the opposite is not true). The HOGE chart is more restrictive but is generally expanded to the external load limit of the aircraft. The use of the HOGE chart to determine computed gross weight will generally only be an advantage at temperatures below 30 °C and 4,000 feet pressure altitude.

Example: An AS-350B2 at 3,000 feet pressure altitude and 30 °C using the HIGE chart reveals a computed gross weight of 4,961 lb. Applying the weight reduction of 160 lb leaves a selected weight of 4,801 lb. Using the HOGE chart for the same conditions reveals a computed gross weight of 5,114 lb. Applying the weight reduction of 160 lb leaves a selected weight of 4,954 lb. This is a difference of an additional 153 lb using the performance calculation from the HOGE chart.

**Under no circumstances shall the maximum internal gross weight limit be exceeded with a non-jettisonable load.**

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Michael A. Martin, Acting Director