

From: [Monty Freeman](#)
To: [Malinowski Edward](#)
Cc: [Gallo Mitchell](#); [Support](#)
Subject: Takeoff calculation for a DeHavilland Beaver DHC-2 MK.1
Date: Tuesday, September 12, 2017 9:19:44 PM
Attachments: [image001.png](#)
[image002.png](#)

Greetings Mr. Malinowski,

Thank you very much for your request for assistance on your colleagues' case. It is our pleasure Sir.

We begin with the AFMS A-31040,

TAKEOFF AND LANDING PERFORMANCE - SEAPLANE provided in the Basic Flight Manual Appendix, Page IV must be adjusted as follows:

Correction Factor	Gross Wt. 5090 lbs or less	Gross Wt. Between 5090 & 5370 lbs	Gross Wt. Between 5370 & 5600 lbs
Water Run	None	Add 15%	Add 30%
Takeoff to 50 Ft. ⁽¹⁾	Add 50%	Add 70%	Add 90%
Landing Run From 50 feet	Add 5%	Add 10%	Add 20%

(1) These distances are based on current take-off procedures; airspeed at 50 Ft. is 80mph IAS.

So, we are at 5150 lbs. and that is +15% for water run, and 70% for 50 ft.

Looking at the AFM for the basic aircraft (please refer to the upgross AFM),

I need pressure altitude – 950 ft., temp of 15 C, headwind of 13 knots (15 mph) (close enough.)

Using the chart and extrapolating a bit (should be done with the upgross AFMS), I get about 1170 feet to clear 50 ft. obstacle.

Adjusting per 5850 AFMS (1170×1.7) = 1989 ft.

The water run is about 68% of takeoff distance, so $1170 \times .68 \times 1.15 = 914$ ft. on the water.

This assumes a great engine, good pilot technique, modest wave height, and 80 mph IAS at 50 ft.

Please find the below link to the charts in the AFMS for further review. Please inform us if this will be sufficient.

<http://aerocet.com/wp-content/uploads/2017/06/A-31040-sm-SAFM.pdf>

Should you require any additional assistance from us please do not hesitate to contact us at

[REDACTED] it would be our pleasure to help Sir.

Thank you very much again for contacting us regarding this request. We appreciate the opportunity to be of service Mr. Malinowski.

Respectfully,
For support inquiries
For sales inquiries
For part inquiries:



Monty Freeman



