

Gravel Runway

Semi-Permanent Program for
Long-Term Runway Preservation



Owner's Manual:

Practices, Procedures and Forms





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Semi-Permanent Gravel Runway Program

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Section #1:
Runway Assessment Checklists

Pre-Application Checklist

Post-Application Checklist

30-60 Days Post Application Checklist

1-Year Post Application Checklist

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Pre-Application Gravel Runway Assessment Checklist

Evaluator's Name: _____ Date(s): _____

Runway Name: _____ Runway Dimensions: _____

Pre-Application Assessment: (check boxes when completed)

- Complete the Visual Assessment Form
- GoPro the runway
- Photograph the runway and all surface conditions
- Stiffness/GeoGauge testing
- Silt load sample collection
- Dynamic Cone Penetrometer testing
- Collect solvent extraction samples
- Collect runway or stockpile aggregate sample for lab testing
- Ship stockpile, silt load and extraction samples to Canton, OH for testing

Notes: _____



Section #2:
Visual Runway Assessments

Practice and Procedure

Visual Runway Assessment Form

Midwest's Photo Guide

SAMPLE EXAMPLE



Midwest Standard Practice and Procedure:

Visual Runway Assessment and Photo/Video Documentation

1. Equipment

- a. Blank Runway Form
- b. Camera
- c. GoPro with vehicle mount
- d. Pen and Clipboard
- e. Measuring tape

2. Visual Runway Assessment

Visual runway assessments are to be conducted at a minimum prior to any applications, within 24 hours post-application and 30-60 days post-application. These assessments are used to evaluate and document runway surface conditions throughout the life of the runway. Most of these runways are in remote locations so Midwest depends on detailed, accurate and honest assessments when making critical decisions.

The completed forms are to be completed on site and sent via email to Gina Greenlee at gina.greenlee@midwestind.com at the end of each day if possible or immediately after returning from the site visit. Hard copies are to be kept by the Evaluator and turned into Gina Greenlee at the Midwest Canton office.

a. Pre-Application Assessment

- i. Complete the top part of the Runway Assessment Form (Attachment A) by providing:

1. Evaluator's name
2. Date
3. Runway name
4. Runway length, width and total square feet
5. Weather conditions

- ii. Walk or slowly drive the length of the runway while evaluating the condition of the runway surface. This may take several passes up and down the runway to complete a thorough assessment. Document the following:

1. Current Dust Level: Evaluate the current dust level by observing aircraft movements (if available), truck generated dust emissions and/or ask on site personnel to evaluate their current dust levels. Make note on the form of which method was used.
2. Runway Profile: Is there a proper crown on the runway that slopes from the centerline to the aprons and allows for adequate drainage.



Section #3: Stiffness Testing

Test Procedure

Humboldt GeoGauge Manual

Test Form

SAMPLE EXAMPLE

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Midwest Standard Practice and Procedure:

GeoGauge Field Testing

1. Equipment

- a. GeoGauge
- b. Moist clean mortar sand
- c. Clipboard and pen
- d. GeoGauge Field Data Sheet
- e. Hand shovel

2. GeoGauge Inspection

- a. Inspect the condition of the GeoGauge prior to use. Make sure the footing is clean and free of all residual soil or debris. To clean the footing, use a damp washcloth or paper towel to remove any soil or debris from the metal footing.
- b. Turn the GeoGauge on by pressing the "ON" button and verify that the battery voltage is adequate (This will be displayed on the screen after turning the device on). The voltage should be greater than 7.5 V.
 - i. If the battery level is less than 7.5 V, the batteries should be replaced by following these steps:
 1. Turn off the GeoGauge. Remove the battery caps by unscrewing counter-clockwise.
 2. Carefully lift and remove the spring and the battery contact retainer.
 3. Remove the batteries, tilting and turning the gauge upside down will facilitate removal.
 4. Insert the fresh batteries with the positive (+) side up in both compartments.
 5. Carefully insert the battery contact retainers and springs and then screw on clockwise the battery caps. There is an O-ring seal on the underside of the battery caps to seal out water and dirt. Hand tighten only. Occasionally during use insure that the battery caps are tight.
 6. Loosen the four (4) corner captive screws with a Phillips screwdriver. Remove any static electricity in one-self by touching a metal earth grounded object such as the back of a computer housing.
 7. Carefully lift the display panel which contains the electronic circuitry on the underside. On the left side are two toggle switches, #1 and #2.
 8. Switch #1 to on as marked. Turn on the unit by pressing the "ON" button. The display will momentarily show reset and then revert to its normal display.
 9. Turn the #1 switch to off. Turn off the unit by pressing the "OFF" button. Replace the display panel back onto the unit and lightly tighten the screws. The GeoGauge is ready for operation.
- c. No warm up is required before measurements can be taken.