



MANDATORY PRACTICES FOR NFL PLAYING SURFACES



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This document describes eleven (11) Mandatory Practices (MPs) for the selection and maintenance of playing surfaces used for National Football League (NFL) games and practices. Taken together, these MPs cover all surface types used in the league, including synthetic turf, natural-, reinforced-, and hybrid grass. These MPs have been developed and approved by the NFL and the NFL Players Association (NFLPA) Joint Field Surface Safety and Performance Committee, and are promulgated in accordance with Article 39, Section 11 of the NFL-NFLPA Collective Bargaining Agreement. As set forth in detail throughout this document, MPs are provided for:

1. impact testing,
2. infill depth and evenness,
3. moisture testing,
4. cleat-surface traction testing,
5. visual inspection of the field surface,
6. the use of anti-microbial agents,
7. surfaces outside the broken yellow boarder,
8. resodding and turf replacement rules,
9. new synthetic turf product screening and testing,
10. "Enhanced Monitoring Sites", and
11. practice field testing.

The timing, frequency, applicability to each surface type, and compliance criteria associated with testing and reporting are specified in each MP.

APPLICABILITY

These MPs are intended solely for playing surfaces used for games and practices in the NFL, domestically and internationally, and may not be applicable to playing surfaces used at other levels of play or for other sports. Further, these MPs are not an exhaustive description of the surface maintenance practices that are or may be used by individual clubs, nor are these MPs intended to replace relevant industry standards or the applicable manufacturer recommendations for care and maintenance of a particular synthetic turf, natural-, reinforced-, or hybrid-grass surface.

METHOD OF REPORTING

Results of testing and inspections required by the MPs must be entered into the Field Surface Reporting System as specified in each MP. Table 1 summarizes all requirements, timing, and criteria associated with each MP.

For any questions related to these requirements, procedures, and criteria, contact a member of NFL Game Operations.



TABLE 1. SUMMARY OF NFL FIELD CERTIFICATION REQUIREMENTS AND CRITERIA

MANDATORY PRACTICE	SURFACE TYPE	REQUIREMENT	TIMING	CRITERIA
MP 1: IMPACT TESTING	All surfaces	STRIKE Testing	FOR OUTDOOR GAMEDAY FIELDS: Within 72h and no later than 24h prior to kickoff. FOR INDOOR GAMEDAY FIELDS: Within 72h prior to kickoff.	$45g \leq \text{Avg Peak } g \leq 90g$
MP 2: INFILL DEPTH AND EVENNESS	Synthetic Turf	FloorTest FT50 testing	FOR OUTDOOR GAMEDAY FIELDS: Within 72h and no later than 24h prior to kickoff. FOR INDOOR GAMEDAY FIELDS: Within 72h prior to kickoff.	$-2mm < \text{Manufacture infill depth target} \leq +4mm$
MP 3: VOLUMETRIC MOISTURE CONTENT TESTING	Natural and hybrid / reinforced grass	TDR 300/350 testing	FOR ALL GAMEDAY FIELDS: Within 72h prior to kickoff.	N/A
MP 4: CLEAT-SURFACE TRACTION TESTING	Synthetic Turf	BEAST testing of game fields by stadium staff	FOR ALL GAMEDAY FIELDS: Monthly, Aug - Jan	N/A
MP 5: VISUAL INSPECTION	All surfaces	Visual inspection for hazards	FOR ALL GAMEDAY FIELDS: On game day, prior to kickoff	Complete certification steps
MP 6: ANTIMICROBIAL AGENTS	Synthetic Turf	N/A	N/A	N/A
MP 7: SURFACES OUTSIDE THE BROKEN YELLOW BORDER	All surfaces	Secured, non-slip covers at field grade	FOR ALL GAMEDAY FIELDS: On game day, prior to kickoff	N/A
MP 8: RESODDING AND TURF REPLACEMENT	All surfaces	Submit notification and/or approval request	As prescribed in Table 2.	N/A
MP 9: SYNTHETIC TURF SCREENING FOR NEW FIELD INSTALLATIONS	Synthetic Turf	*For the 2026 NFL Season: Advance product approval required	*For the 2026 NFL Season: Prior to installation	*For the 2026 NFL Season: - Peak torque measured with BEAST ≤ 180 - Peak g measured with the STRIKE $45g \leq \text{Peak } g \leq 90g$
MP 10: ENHANCED MONITORING SITES (AS DEFINED IN ARTICLE 39, SECTION 11 OF THE CBA)	All surfaces	Potential additional testing of outdoor surfaces under extreme conditions	As appropriate	N/A
MP 11: PRACTICE FIELDS	All surfaces	Perform MPs 1, 2 or 3 as relevant, 5, 6, 8, and 9 as applicable based on surface	Within 72h and no later than 24h prior to activity (5x per season)	Same as in applicable MPs

MP 1: IMPACT TESTING



APPLICABLE TO:

- ✓ **SYNTHETIC TURF**
- ✓ **NATURAL GRASS**
- ✓ **HYBRID AND/OR REINFORCED GRASS**
- ✓ **GAME FIELDS**
- ✓ **PRACTICE FIELDS**

GOALS FOR IMPACT TESTING

The goal of surface impact testing is to ensure an appropriate surface hardness for NFL play. Impact testing for NFL playing surfaces focuses on how NFL players interact with the surface during play and is designed to mimic specific cleat-surface engagement conditions. This MP requires testing and reporting results within the below impact metrics. Figure 1 illustrates the rationale behind the NFL surface impact testing conditions.

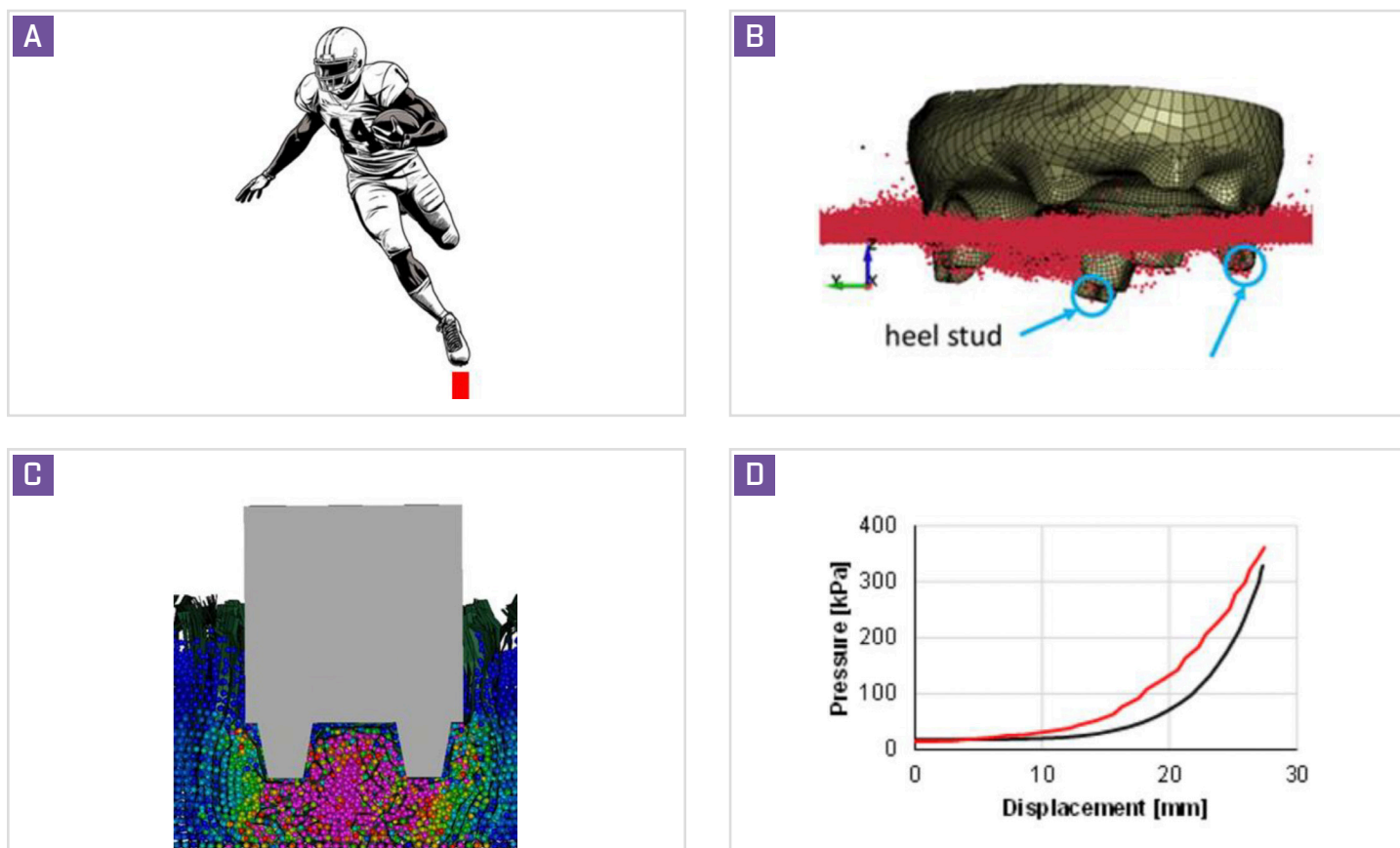


Figure 1. (a) Realistic player-surface engagement; (b) Finite element modeling of cleat-surface interaction; (c) Finite element modeling of test apparatus; (d) Structural response (pressure vs. displacement) of STRIKE (red) and real athlete (black)

IMPACT TESTING DEVICE OVERVIEW

The device for impact testing is the STRIKE surface impact tester (Figure 2). The NFL will provide one STRIKE device for each domestic game day and each practice facility prior to the commencement of each season. STRIKE Devices will also be used by the NFL grounds crew and/or independent inspectors for testing of international fields, conference championships, Superbowl, and other neutral sites as necessary.



Figure 2. (a) Schematics for the STRIKE device and (b) impact mass; (c) STRIKE in use in a stadium and (d) operator using the STRIKE

The STRIKE is a portable, wireless, user-operated impact testing device that measures the acceleration of a mass dropped onto the playing surface. The STRIKE impact data collection process involves using the device software interface to trigger the release of the incorporated 5 kg (11 lb.) missile from its internal height of 0.412 meters. The free-falling missile will impact the playing surface with the studded end face and record the resulting change in acceleration as it impacts the field.

Once triggered by the operator, the drop mass release, missile impact, and data collection occur automatically. STRIKE metrics include "peak g", "energy restoration" (aka "bounce back"), and surface deformation. While this Mandatory Practice focuses on "peak g", for the 2025 NFL Season, all metrics are being collected in 2025 and are under investigation for future implementation into the Mandatory Practice Impact Testing criteria.

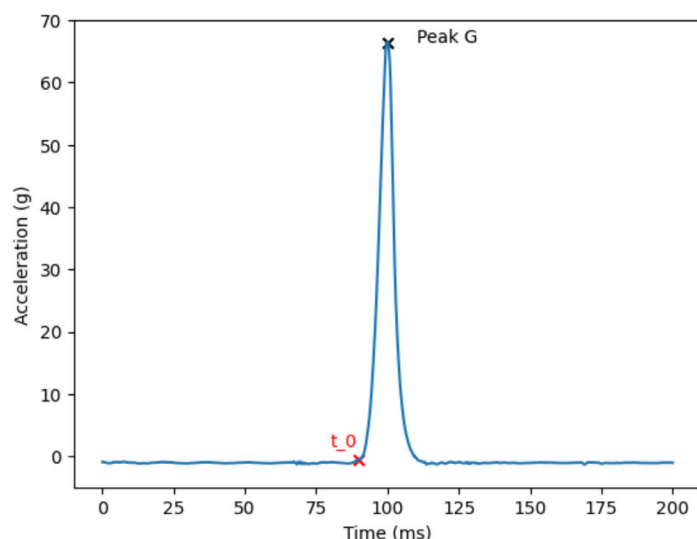


Figure 3. Peak g calculation from an acceleration time history recorded from one test.

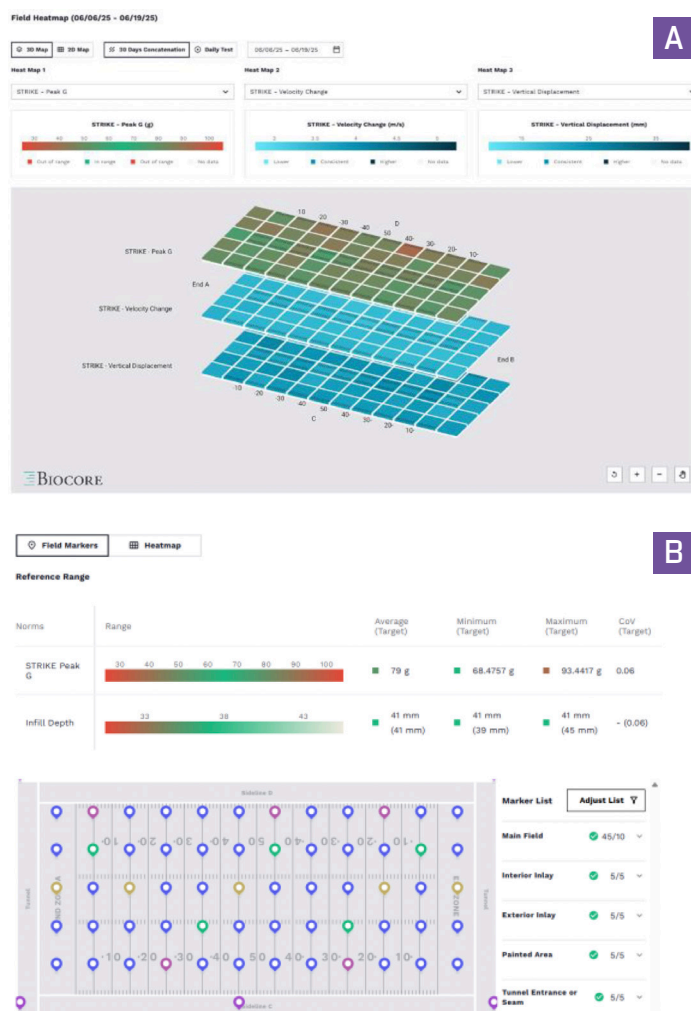


Figure 4. (a) Impact hardness results: dashboard data view and (b) reporting data view

"Peak g" will be recorded for each test and is calculated by taking the maximum acceleration value for the duration of the impact (Figure 3).

Results of each impact test are saved on the device for user-prompted upload to the Field Surface Reporting System. Once uploaded, data can be visualized in the *dashboard* and/or *reporting* sections (Figure 4).

Each STRIKE device permits data collection in two modes – 1) Research and 2) Reporting. The type and quality of test data collected is identical between modes; however, the distribution and visibility of the data is different.

Specifically, data collected under **Research** mode is displayed on the dashboard page and is intended to inform the field staff about field conditions.

Field Management staff may use this device mode to conduct testing often and at a cadence that meets their needs. Testing for gameday reporting and compliance must be collected with the device in **Reporting** mode.

It is important to note that in addition to testing for field hardness, the STRIKE onboard software also serves as the required method of data entry for infill depth (where required) and moisture content (where required). The methods, criteria, and frequency for these mandatory practices are outlined in [MP 2](#), and [MP 3](#), respectively.



PRE-REQUISITES FOR IMPACT TESTING USING THE STRIKE

- Training is required for safe STRIKE operation. Periodic training will be coordinated by the NFL and may also be requested as needed. Full STRIKE operational instructions can be found in the operations manual [document](#).
- Devices are pre-configured with required fields and locations to be tested. Ensure your device contains all fields pertinent to your facility(s). Contact the league for any discrepancies or adjustments needed.
- Each test location is also assigned a **Field Marker Type** denoting whether the drop should take place on the main field or a special section of the field such as a painted area, inlay, or tunnel.
- Test data is required to be uploaded via Wi-Fi network at the end of a test session. Ensure the device can connect to a Wi-Fi network and the data upload feature is functional.

IMPACT TESTING PROCEDURE

- Prior to testing, ensure that the STRIKE device is assembled according to the instructions, fully charged, and set to the correct field to be tested.
- Start at test location #1, located within the field's "Endzone A". Place the device on the field and ensure it is stable in a vertical position.
- To perform a test,
 1. Turn the device on and select **Test** in the **Main Menu**;
 2. Confirm or select the appropriate user and field names;
 3. Set mode to **Research** or **Reporting** (as applicable);
 4. Set/confirm the test location;
 5. Ensure the device is set to drop in the appropriate **Field Marker Type** (Figure 5);
 6. Raise and arm the device's handle;
 7. Press **Start** to release the mass;
 8. Select **Continue** after the test result metrics appear on the screen;
 9. Input the moisture content **or** infill depth measurement as prompted by the STRIKE. These measurements result from additional tests described in [MP2: Infill Depth and Evenness](#) and [MP3: Volumetric Moisture Content Testing](#). This step completes a single test;
 10. Select **Test next location**, **Retest location**, or **Change location**;
- Once all field locations are tested, select **Upload** in the **Main Menu** (Figure 5).

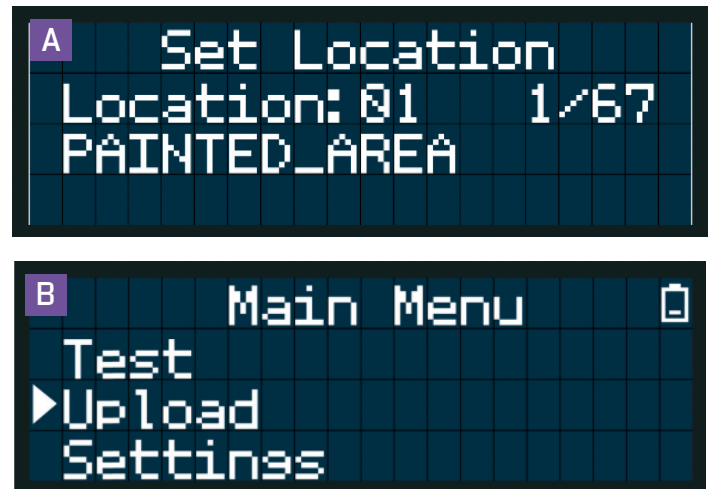


Figure 5. (a) Testing location and field marker type showing a painted area to be tested and (b) upload data screen.



IMPACT TESTING REQUIREMENTS



Criteria

Testing is required at each of the 60 specified locations within the playing field as well as an additional number of pre-programmed locations around the field perimeter. The number of additional perimeter test locations varies from field to field based on the facility layout and tunnel entrances and are pre-programmed for each field. Not all perimeter test locations are required to be tested during each week, only the pre-programmed locations are required for a given field in a given week. Refer to the *field locations diagram* (Figure 6) to locate the perimeter test locations as prompted by the device.

The metric for field hardness is Peak g.

For each test, a single Peak g value is calculated and reported by the STRIKE at each field location as described in Figure 3. The average Peak g across all tested locations is then calculated as the arithmetic mean of all required testing points (Equation 1).

$$\text{AVERAGE VALUE (ARITHMETIC MEAN)} = \frac{\text{SUM OF ALL VALUES}}{\text{NUMBER OF TEST POINTS}}$$

Equation 1. Calculation of average field metric value

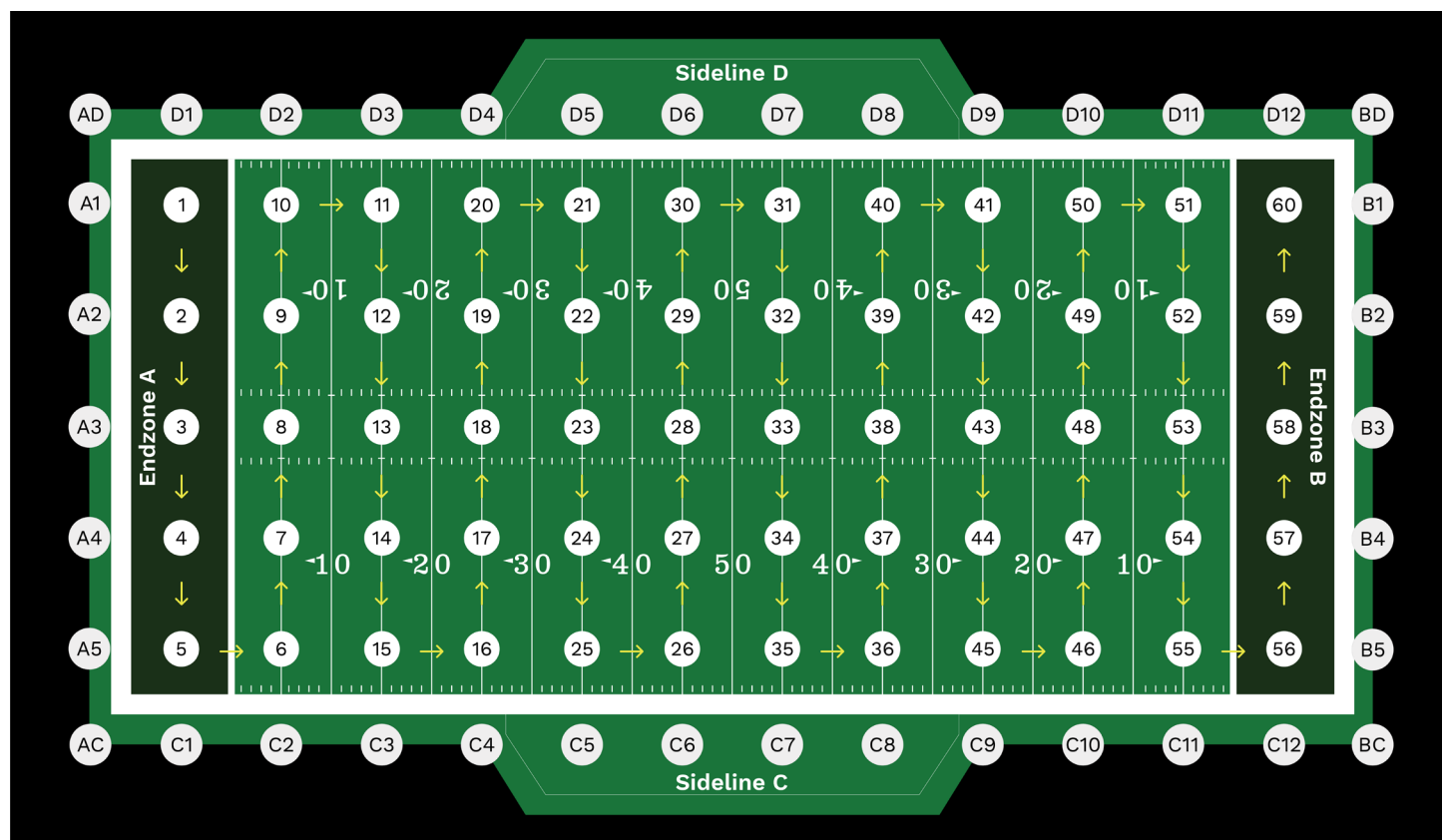


Figure 6. STRIKE field locations diagram

The field should produce an average peak g greater than or equal to 45 g and lower than or equal to 90 g using the STRIKE.

If a field's average Peak g is lower than 45 g or greater than 90 g, the Club field manager shall initiate remedial measures, as appropriate, in accordance with the applicable surface supplier's recommendations, with the goal of bringing the field's average Peak g within the specified range. In the event the field remains out of compliance, the NFL will invoke the procedures set forth in Article 39, Section 11(d) of the NFL-NFLPA Collective Bargaining Agreement (CBA), as amended by the NFL-NFLPA side letter dated May 19, 2023.



Timing and Frequency

In accordance with this MP, all indoor game fields (dome stadiums and retractable roof stadiums) should be tested within 72 hours (h) preceding the commencement of each scheduled NFL game to be played on that field. All outdoor fields shall be tested within 72h, and no later than 24h preceding the commencement of every scheduled NFL game.

If any game field hosts an event that imposes significant traffic or surface loads (e.g., a concert) during the playing season (pre-, regular-, or post-season), impact hardness testing and reporting must occur between the event's conclusion (prior to field remediation) and before the next NFL game.

REMEDIATIONS - IMPACT TESTING

In the event that testing reveals that the field is not in compliance with the Criteria above OR if the weather forecast for the site predicts: (i) temperatures to be below 32 degrees Fahrenheit for a period of two (2) or more days immediately preceding the scheduled game and the relevant field does not have subsurface heating; or (ii) extreme weather conditions (e.g., 12 or more inches of snow) in the two (2) days immediately preceding a scheduled game; OR a Club field manager, an NFLPA designee or a player (through an NFLPA designee) raises a specific concern about the condition of a game field to the NFL, the site will be designated as an "Enhanced Monitoring Site." See [MP 10](#) for more information about "Enhanced Monitoring Site" requirements.

In the event any playing surface is found to be out of compliance on game day, that stadium field manager shall initiate remedial measures as appropriate in coordination with the NFL Football Operations Department and the NFL will immediately notify the NFLPA's designee(s) and take all reasonable measures to remedy. The NFL shall regularly update the NFLPA designee(s) on game day regarding the field's condition, including remedial measures and other information relevant to the condition of the field. The stadium field manager will test the surface again prior to game-day play in accordance with Article 39, Section 11(d) of the CBA and these MPs. In the event it remains out of compliance, the NFL will also promptly communicate to the NFLPA and its designee(s) the Commissioner's ultimate determination as to whether game-play will commence as scheduled.

MP 2: INFILL DEPTH AND EVENNESS



APPLICABLE TO:

- | | |
|---|--------------------------|
| ✓ SYNTHETIC TURF | ✓ GAME FIELDS |
| ✗ NATURAL GRASS | ✓ PRACTICE FIELDS |
| ✗ HYBRID AND/OR REINFORCED GRASS | |

GOALS FOR INFILL DEPTH AND EVENNESS TESTING

Synthetic turf infill consists of granular particles inserted between the synthetic turf fibers.

Essential functions of turf infill include:

- **Stability:** infill keeps the synthetic turf grass blades upright and in place and helps prevent the turf from shifting, wrinkling, or buckling.
- **Cushioning and shock absorption:** infill can help attenuate impact energy exerted onto the surface.
- **Traction:** infill can affect cleat-surface grip through its interaction with the turf fibers.
- **Drainage:** infill can create a porous layer contributing to water drainage and dissipation.
- **Temperature regulation:** some types of infill can affect the surface temperature and microclimate.

TESTING DEVICE FOR INFILL DEPTH AND EVENNESS

Infill depth shall be measured using the FloorTest FT50 calibrated thickness gauge (Figure 7) or a gauge of comparable accuracy. This device will be provided to field staff prior to the commencement of the season. Please contact a member of NFL Game Operations for assistance determining equivalence for a test device that differs from the one specified above.



Figure 7. FloorTest FT50 calibrated thickness gauge

INFILL DEPTH AND EVENNESS TESTING PROCEDURE

Infill depth measurements shall be taken alongside STRIKE impact tests for all test locations described in [MP1: Impact Testing](#). Infill depth measurements shall follow the same procedure for “field marker types” specified in [MP1: Impact Hardness](#).

To generate an infill depth measurement:

- Insert the measuring probes fully into the infill until they are in solid contact with the turf backing. Ensure that the device is sitting on a level undersurface (without cracks, defects, or depressions) and that the gauge is held vertical to the field.
- Adjust the barrel portion of the gauge by sliding it until full contact with the top surface of the infill is made. Care should be taken not to apply excessive down force with the hand.
- Read the thickness measurement from the 1-mm delineations on the barrel.
- Enter the infill depth measurement as prompted by the STRIKE (Figure 8) after performing an impact test drop as described in [MP1: Impact Testing](#).



Figure 8. Infill depth recording process using STRIKE

INFILL DEPTH AND EVENNESS REQUIREMENT

Criteria

The depth and evenness of synthetic turf infill surfaces shall be maintained in accordance with the specifications below, which are determined by the applicable synthetic turf manufacturer.

The infill depth at each and all locations must be within the specified range of not less than 2 mm below and not more than 4 mm above the manufacturer-specified target (-2 to +4 mm).

Timing and Frequency

In accordance with this MP, all indoor game fields (dome stadiums and retractable roof stadiums) shall be tested within 72h preceding the commencement of each scheduled NFL game to be played on that field. All outdoor fields shall be tested within 72h, and no later than 24h preceding the commencement of every NFL game.

If any synthetic turf game field hosts an event that imposes significant traffic or surface loads (e.g., a concert) during the playing season (pre-, regular-, or post-season), infill depth testing and reporting must occur between the event's conclusion (prior to field remediation) and before the next NFL game.

REMEDIATIONS - INFILL DEPTH AND EVENNESS TESTING

In the event of non-compliance, that stadium field manager shall initiate remedial measures, as appropriate, in accordance with the applicable surface supplier's recommendations and in coordination with the NFL Football Operations Department.



MP 3: VOLUMETRIC MOISTURE CONTENT TESTING



APPLICABLE TO:**SYNTHETIC TURF****NATURAL GRASS****HYBRID AND/OR REINFORCED GRASS****GAME FIELDS****PRACTICE FIELDS**

GOALS FOR VOLUMETRIC MOISTURE CONTENT TESTING

The playing conditions of grass sports surfaces are influenced by both plant and soil factors. High-performance sports fields are constructed using engineered sand rootzones to provide a medium for plant growth and for player-surface interactions. Soils are comprised of solids and the voids (pores) between them. A soil's solid phase consists of mineral and organic matter, and the porous phase may be populated by either liquids or gases. It is important to maintain a balance between gas and liquid within the soil as both are necessary for turfgrass growth and health. Furthermore, the moisture content of a playing surface may affect other surface mechanical properties including impact hardness and traction.

The goals for volumetric moisture content testing are to provide additional data to contextualize other surface measurements (i.e. impact hardness), to monitor moisture consistency across the playing surface, and to provide field managers with data to better understand, maintain, and remediate specific playing surfaces.

TESTING DEVICE FOR VOLUMETRIC MOISTURE CONTENT TESTING

The device to be used for soil moisture content measurement is the Field Scout Soil Moisture Meter TDR 300/350 with 1.5-inch probes (Figure 9). The device above should be available in all NFL game and practice facilities. Contact a member of the NFL Game Operations department if that is not the case.



Figure 9. Field Scout Soil Moisture Meter TDR 300/350

VOLUMETRIC MOISTURE CONTENT TESTING PROCEDURE

To generate an infill depth measurement:

1. Install the 1.5-inch probes according to the instruction manual supplied with the device;
2. Navigate to the **Rod Length** menu system by pressing the **Mode** key on the device;
3. Press the **Delete** key to select the 1.5 in. rod length;
4. Press **Mode** again until "Stdndr VWC%" is displayed;
5. Carefully insert the probe into the surface. The entire 1.5 inches of the probes must be inserted to obtain an accurate reading. Avoid moving the probe once inserted into the soil as any back-and-forth movement of the probes during insertion can create air gaps around the probe that can influence the accuracy of the reading;
6. Once inserted, press the **Read** button and record the VWC% as prompted by the STRIKE (Figure 10);
7. Use the STRIKE to record the moisture content value when prompted after each impact test;
8. Moisture content data is uploaded into the Field Reporting System along with impact testing data.

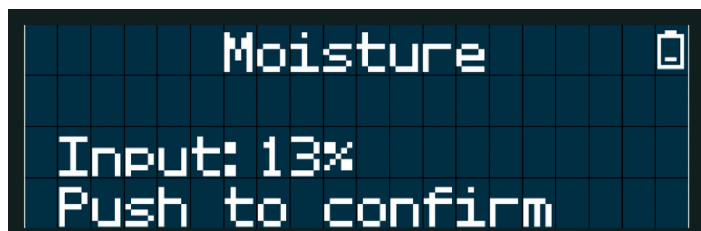


Figure 10. Moisture content recording process using STRIKE

VOLUMETRIC MOISTURE CONTENT TESTING REQUIREMENTS



Criteria

Volumetric soil moisture content values must be measured simultaneously with, and in the immediate vicinity of, the measurements of impact hardness at each test location specified in [MP1: Impact Testing](#).

There is no compliance criteria associated with volumetric moisture content testing.



Timing and Frequency

In accordance with this MP, all indoor game fields (dome stadiums and retractable roof stadiums) should be tested within 72h preceding the commencement of each scheduled NFL game to be played on that field. All outdoor fields shall be tested within 72h, and no later than 24h preceding the commencement of every NFL game.

If any natural or hybrid grass game field hosts an event that imposes significant traffic or surface loads (e.g., a concert) during the playing season (pre-, regular-, or post-season), volumetric moisture content testing and reporting must occur between the event's conclusion (prior to field remediation) and before the next NFL game.

MP 4: CLEAT-SURFACE TRACTION TESTING



APPLICABLE TO:

- | | |
|---|--------------------------|
| ✓ SYNTHETIC TURF | ✓ GAME FIELDS |
| ✗ NATURAL GRASS | ✗ PRACTICE FIELDS |
| ✗ HYBRID AND/OR REINFORCED GRASS | |

GOALS FOR CLEAT-SURFACE TRACTION TESTING

The NFL and NFLPA continue to direct research on athletic cleat-surface interactions. The goals of traction testing on synthetic turf fields in 2025 are to measure and monitor cleat-surface traction loads throughout the season, and to inform the development of intervention strategies and improvements.

TRACTION TESTING DEVICE

The traction testing device is the *Biocore Elite Athlete Shoe-Surface Tester* (BEAST) (Figure 11). The tester uses a typical NFL cleat-form to apply vertical loads to the surface consistent with those applied by NFL players during play (Kent et al. 2012). To evaluate traction, the device uses a hydraulic piston to apply sufficiently strong translational and rotational forces to the cleat-form to create slippage at the cleat-surface interface. The loads observed during slipping describe the load-bearing capacity of that interface (Kent et al. 2011; 2015) (Figure 12).



Figure 11. (a) The BEAST and (b) detail of the cleat-form

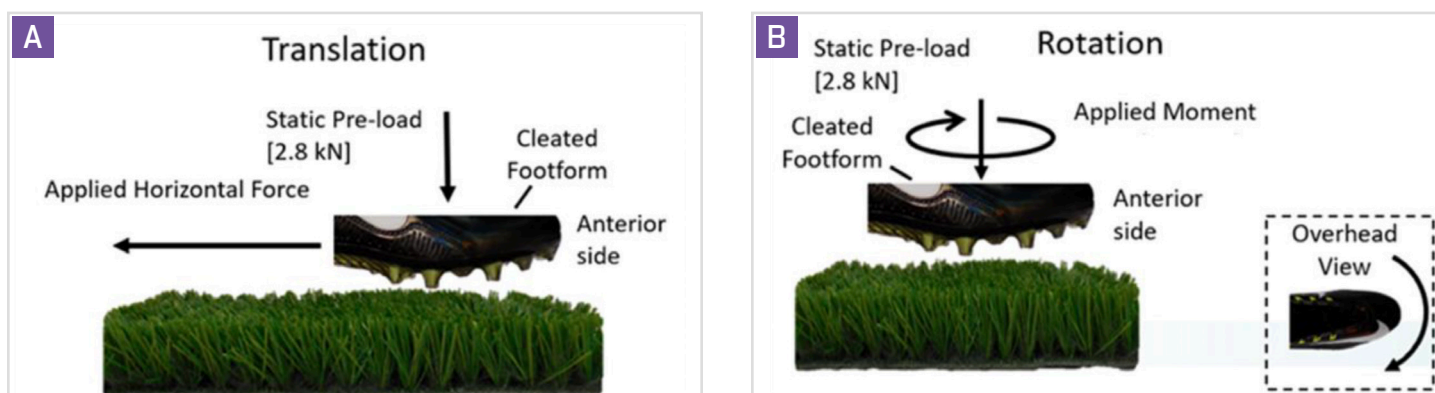


Figure 12. (a) Cleat-surface testing diagram for translational traction and (b) rotational traction

Important test metrics for load include peak shear force in newtons (N) and peak torque recorded in newton-meters (Nm). This is the highest load recorded during the course of a test. Displacement metrics for translation and torsion tests are recorded as linear displacement at peak load recorded in millimeters (mm) and angular displacement at peak torque recorded in degrees (°), respectively. (Figure 13).

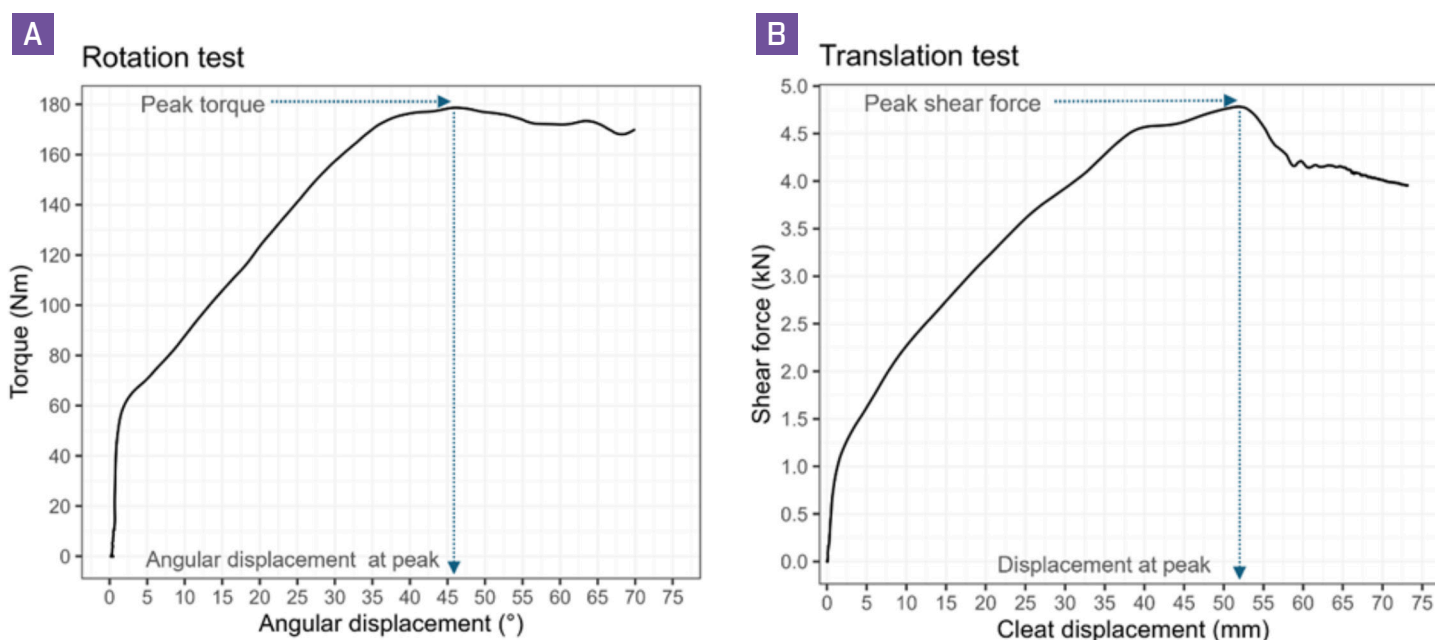


Figure 13. (a) Example BEAST data traces for rotation and (b) translation.

PREREQUISITES FOR TRACTION TESTING USING THE BEAST

- BEAST devices, procedures and personnel onboarding and training are provided by the League with support from Biocore;
- Training is required for safe BEAST operation. Training and onboarding are coordinated by the NFL and can be requested by field staff as needed. Only properly trained staff are permitted to conduct testing. Full operational instructions can be found in the [operations manual](#);
- Test data is required to be uploaded via Wi-Fi network at the end of a test session. Ensure the device can connect to a Wi-Fi network and the data upload feature is functional.

TRACTION TESTING PROCEDURE

1. Prior to testing, ensure that the BEAST device is fully functional and free of defects and/or damage;
2. Connect the BEAST to a towing vehicle using the hitch assembly and a 2-inch ball, ensuring that the BEAST is leveled when the frame is raised. Lock the ball hitch receiver;
3. Turn the master power switch on the back of the BEAST to **On**. Wait for the computer to start up and take you to the BEAST homepage. Login with the user credentials supplied to you during training;
4. If not already done, set the test location appropriately to the stadium name and surface type to be tested. To set a new test location select **Set Test Location**;
5. Select **Test Session**. Test routines may already be set up during training for your field. If not, please set up the appropriate test matrices as instructed during training;
6. Ensure the tests selected are:
 - Full Power Rotation
 - Infill Depth
 - Half Power Translation;
7. Within a given stadium field, start the test at location #1 as shown in Figure 14. Ensure the highlighted test location on the field diagram matches the BEAST's physical on-field location. Press **Next Location** or **Previous Location** to adjust if needed;
8. To begin, select **Start Sequence**. The device will run through all pre-selected tests. Once tests are completed, **and only when the frame is raised**, move to the next test location as indicated in Figure 14. When at the next test location, select **Start Sequence**. The BEAST will repeat the pre-selected tests. Repeat until all test locations are completed;
9. Upload the data by connecting the BEAST to Wi-Fi and selecting **Upload Data** in the homepage.
10. Upon test completion, **fully raise the frame before exiting the field and towing the BEAST** to its designated storage area.

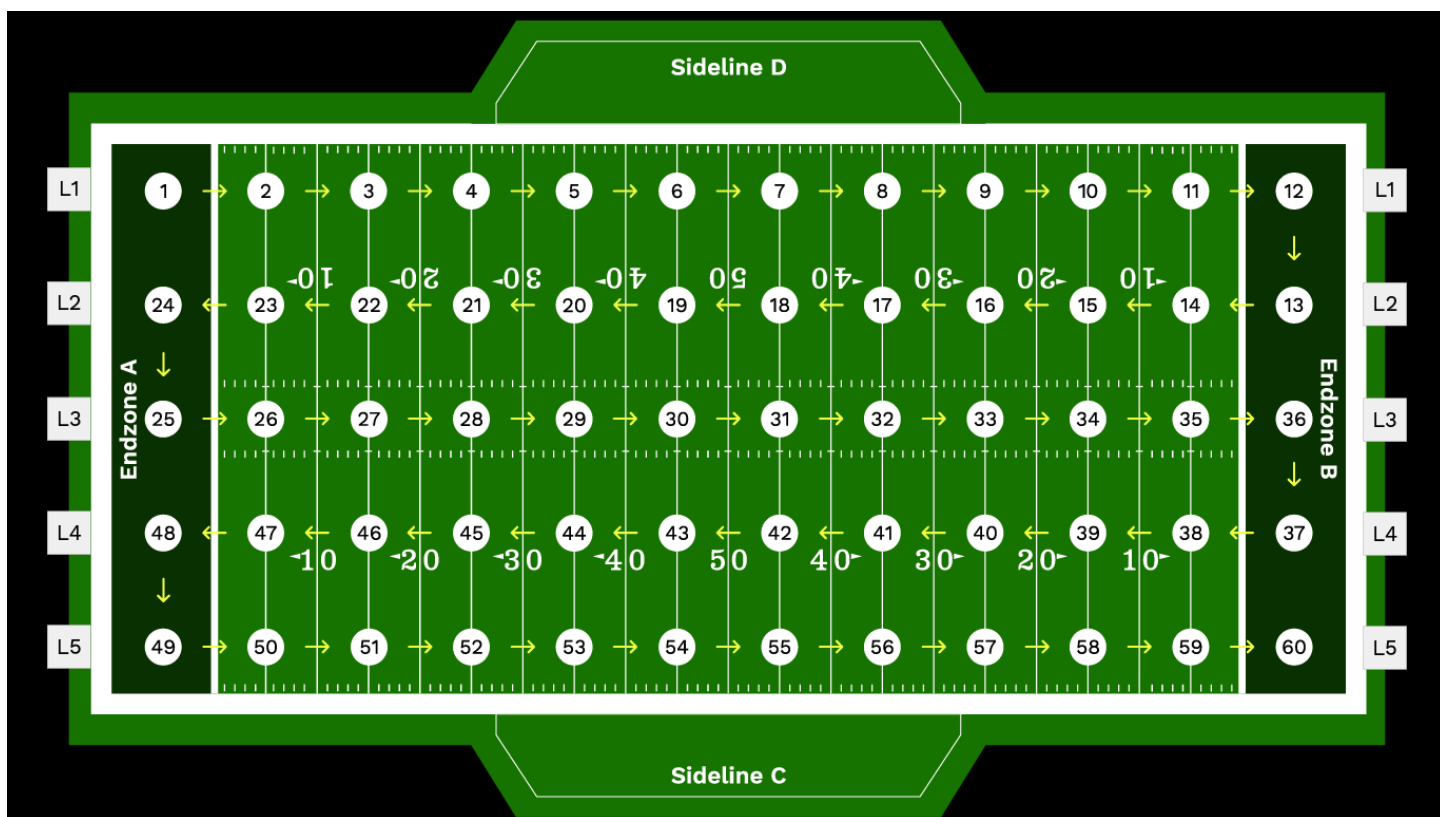


Figure 14. Location of End A, End B, Side C, and Side D for reference when identifying locations to be tested with the BEAST.

The test sequence for the BEAST ("down the field") is intended to minimize the amount of driving and turns on the playing field and is different than the STRIKE pattern ("across the field")



CLEAT-SURFACE TRACTION TESTING REQUIREMENTS

Criteria

While there is no specific traction requirement criteria for gameday defined as of yet, beginning in the 2025 season, cleat-surface traction testing of synthetic turf game fields will be required by club and/or stadium personnel at all U.S.-based game day venues during multiple weeks during the season, for research purposes only.

Test events shall include all test locations within the playing field (locations 1-60; Figure 14). Aside from conducting the testing and uploading the results, at present there are no compliance criteria for the magnitude of traction recorded during the on-field cleat-surface traction testing.

Timing and Frequency

All U.S.-based synthetic turf game fields shall be tested with the BEAST at least once per month from August through January during the playing season. Traction data will be available to club and venue staff through the dashboard on the Field Surface Reporting System (Figure 4).

If during the testing season, any game field hosts an event that imposes significant traffic or surface loads (i.e., a concert), cleat-surface traction testing is strongly recommended immediately after the event **and** following remediation, when the field is in game-ready condition.

Non-NFL field use may impact cleat-surface traction. To contextualize traction data collected, any significant field activities shall be logged in the Field Surface Reporting System. Significant field activities include non-NFL sporting events, non-sporting events, field remediations, surface changes, and special events that may take place on the field of play (private dinners, fan fairs, etc.).



MP 5: VISUAL INSPECTION



APPLICABLE TO:

- ✓ **SYNTHETIC TURF**
- ✓ **NATURAL GRASS**
- ✓ **HYBRID AND/OR REINFORCED GRASS**
- ✓ **GAME FIELDS**
- ✓ **PRACTICE FIELDS**

GOALS FOR VISUAL INSPECTION

Visual inspection of playing surfaces can identify potential safety hazards and maintenance needs, enabling remediation prior to game play. This process includes walking the field to perform a thorough check for holes, uneven surfaces, debris and foreign objects, standing water, and other irregularities. It is also important to assess the condition of non-playing surface components including wall pads, valve boxes, fences, backstops, and bench areas.

VISUAL INSPECTION METHODS

Prior to game time, the field manager must:

- Visually inspect the surface to ensure all debris and other foreign objects are removed;
 - Perform a magnetic sweep following resodding and/or any non-football event in which the surface cannot be protected from the unintentional deposition of foreign materials (bolts, cables, hooks, hair pins, etc.);
 - Visually inspect the surface for excessive paint build-up in all locations where paint has been applied;
 - Visually inspect the field to make sure that any present irrigation heads are properly positioned and that associated holes are filled with granular material (e.g. sand, or calcined clay) to prevent trapping of the cleat or a body part. All irrigation heads should be recessed in accordance with the manufacturer's recommendations and should not pose a hazard during play (striking, falling, tripping, etc.).
- Visually inspect the field to make sure that the surface is free of pooled water, ice, or snow.
 - Visually inspect the area surrounding the playing surface (including outside the broken yellow boarder to the walls) to make sure that all valve boxes and similar covers do not present a significant or abrupt change in grade from the playing surface and that all are covered securely with a pliable material in good condition that would provide reasonable traction to a cleated player.
 - For synthetic turf fields:
 - a. Visually inspect all seams and inlays to make sure that no sections of an inlay have become separated from the surrounding turf and that seams have not separated wider than 1/8";
 - b. Visually inspect all removable/convertible synthetic turf sections (i.e., end-zone inserts) to make sure that they fit well with adjacent turf areas, leaving no seam separations wider than 1/8";
 - c. Visually inspect the surface for any other problems, such as wrinkles or burns.

COMMON REMEDIATIONS - VISUAL INSPECTION

Visual inspection to ensure that the playing field is free of surface debris and other foreign objects should be done after all in-game events, including pre-game and half-time. All problems from a visual inspection should be remediated in accordance with the applicable manufacturer's recommendations.

VISUAL INSPECTION REQUIREMENTS



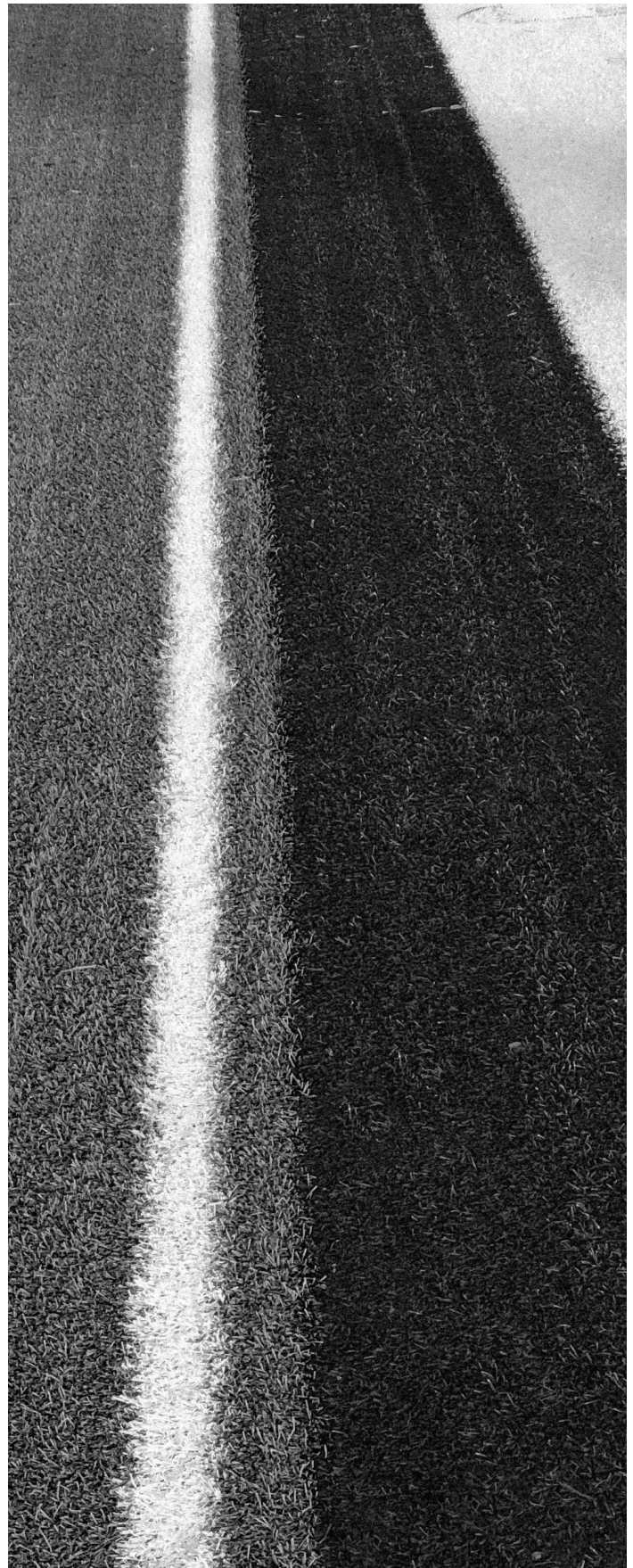
Criteria

Prior to game time, the playing surface shall conform to the visual inspection requirements described above. Acknowledgment for completion of visual inspection steps is required to complete the field certification report in the Field Surface Reporting System.



Timing and Frequency

All fields must be certified in compliance with the above requirements on game day and prior to the players entering the field. Initial inspections should be performed sufficiently in advance of game time to allow for remediation and reinspection as needed.





MP 6: ANTIMICROBIAL AGENTS



APPLICABLE TO:**SYNTHETIC TURF****GAME FIELDS****NATURAL GRASS****PRACTICE FIELDS****HYBRID AND/OR REINFORCED GRASS****REQUIREMENT**

Antimicrobial agents should not be used on synthetic turf surfaces. The medical and scientific communities have not identified any benefit of using these products on synthetic turf surfaces, and their application may cause potential detriment to the playing surface.

The Centers for Disease Control and Prevention (CDC) does not recognize synthetic turf as a significant source of Methicillin-Resistant *Staphylococcus aureus* (MRSA) infections. The CDC has stated “[t]here is a lack of evidence that large-scale use (i.e., spraying or fogging rooms or surfaces) of disinfectants will prevent MRSA infections more effectively than a more targeted approach of cleaning frequently touched surfaces” (see reference below). This MP should not be interpreted as prohibiting the use of cleansing agents such as detergents and soaps to clean synthetic turf surfaces, provided that such cleaning is performed in accordance with the recommendations of the applicable turf and cleaning agent manufacturers.





MP 7: SURFACES OUTSIDE THE BROKEN YELLOW BORDER



APPLICABLE TO:**SYNTHETIC TURF****GAME FIELDS****NATURAL GRASS****PRACTICE FIELDS****HYBRID AND/OR REINFORCED GRASS****REQUIREMENT****Horizontal Surfaces:**

Horizontal surfaces may consist of grates, tracks, pads, any concrete surface, valve box covers, and access tunnels. Every horizontal surface within the stadium that a player may reasonably expect to contact during a game, including surfaces outside the broken yellow border, must have the following characteristics. Refer to the *Game Operations Manual* for details on dimensions for the broken yellow border.

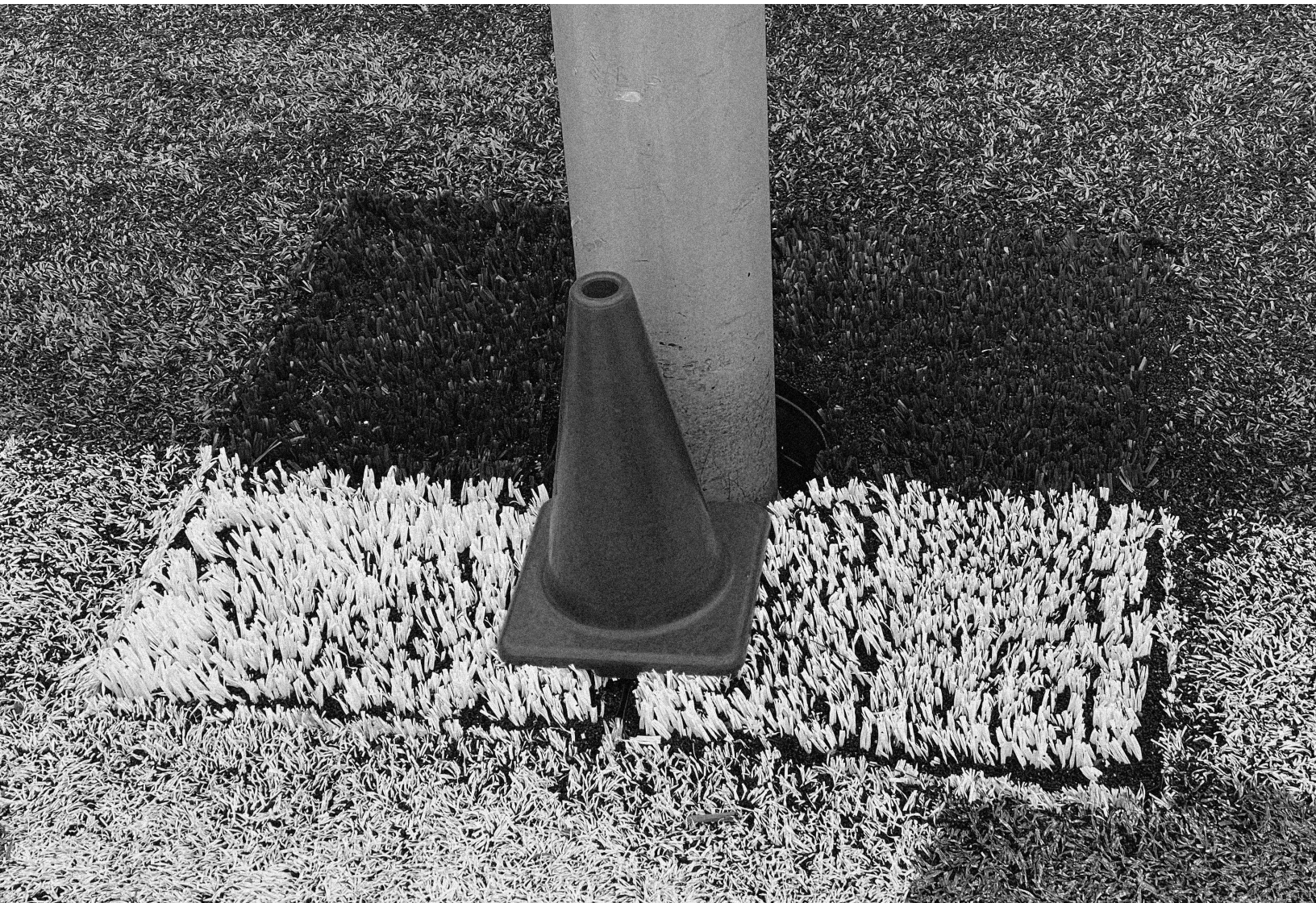
1. The surface should be non-slip when contacted by a cleated shoe. This can be accomplished either by covering the surface with a non-slip mat or other covering that will not move underfoot when contacted by a player, or by installing a running-track surface layer in such a manner as to make it non-slip when contacted by a cleated shoe. This includes valve box covers and similar items;
2. The surface should be compliant (cushioned). Uncovered rigid surfaces such as exposed concrete, drainage grates, valve box covers, and the like should not exist anywhere that a player could interact with them;
3. The surface should not present a significant or abrupt change in grade from the playing surface;
4. All covers must be secure and in good condition. For example, non-slip coverings on valve boxes must be securely attached to the valve box lid;
5. In cases where the track includes a drainage zone against the field wall, the non-slip surface must end no more than 18 inches from the field wall. Any drainage areas that require additional space from the field wall must be treated or covered by a pliable material that provides reasonable traction to a cleated player or have specific league approval;
6. All horizontal surfaces that fall within the broken yellow border must meet the criteria outlined in [MP1: Impact Testing](#).

Vertical Surfaces:

1. All field walls and other vertical surfaces (including railings, access panels, and staircases, etc.) less than 30 feet from the edge of the playing field must be covered by padding. Playing field is defined as the boundary of where a player is considered in or out of bounds, and the distance is measured as 30 feet in any direction from that boundary line.
2. The minimum height for all wall padding is 7 feet or the entire height of the vertical surface if less than 7 feet.

Field Tunnels:

1. Non-slip surfaces must extend at least 15 feet inside field tunnels.
2. All non-slip surfaces laid inside of field tunnels must extend to within five (5) inches of the tunnel walls. Any instance where the non-slip surface is to be laid more than five (5) inches from the field wall requires specific league approval.
3. The vertical lip of the field tunnel must be padded if it is within 30 feet of the edge of the playing field (minimum height of 7 feet), but padding is not required inside of the tunnel.



MP 8: RESODDING AND TURF REPLACEMENT



APPLICABLE TO:

- ✓ **SYNTHETIC TURF**
- ✓ **NATURAL GRASS**
- ✓ **HYBRID AND/OR REINFORCED GRASS**
- ✓ **GAME FIELDS**
- ✓ **PRACTICE FIELDS**

Repairs and replacements of playing surfaces may be necessary under various circumstances. The circumstances will dictate the plan of action and coordination with the League. Refer to Table 2 for details encompassing the most common field replacement scenarios. Resod and turf replacements must be entered into the Field Surface Reporting System.

GENERAL REQUIREMENTS FOR RESODDING AND TURF REPLACEMENTS

If a Club intends to perform a full playing surface replacement, the Club must provide the NFL Football Operations Department with notice of the replacement at least two weeks in advance of project commencement. Clubs will not be required to provide notice for partial playing surface replacements that are less than 400 square feet. For full field replacements, a "Surface Change" activity must be reported in the Field Surface Reporting System. For new synthetic turf fields, turf and infill samples must also be sent to NFL Football Operations.

All surface replacement events for areas over 400 sq. ft. during the season, regardless of the time prior to the next game, require a notification via the Field Surface Reporting System.

Any repairs or modifications to the playing surface (applicable to natural, hybrid and artificial surfaces) that exceed an area of 400 sq. ft. but less than 64,000 square feet (i.e., a full playing field) must be submitted for league approval 2 weeks in advance.

SYNTHETIC TURF REPLACEMENT

For synthetic turf surfaces, clubs are not permitted to change turf panels or similar turf sections (such as end-zone panels) of any area exceeding 400 sq. ft. within 48 hours prior to kickoff of an NFL game without advance league approval. Special requests to the Football Operations Department via the Field Surface Reporting System at least one month in advance of synthetic turf change for areas over 400 sq. ft. can be made if the club wishes to change turf sections within the 48-hour time frame. The request must include the reason for the request, the square footage to be changed, and contingency plans for potential weather and equipment failures that could result in a delay in the start time of an NFL game.

NEW SYNTHETIC TURF - INLAY INSTALLATION TECHNIQUE

For all new synthetic turf game field installations, the inlay installation technique of gluing backing to backing exposed by shearing of turf fibers is prohibited. All inlays, including hash marks, logos, etc., must be installed in such a manner so that a consistent infill depth can be provided across the entire surface. This is most typically accomplished by cutting the main field backing and gluing or sewing inlays. Exceptions will be considered for turf systems that will be routinely installed/uninstalled via rolling or similar procedures. Requests to the NFL Football Operations Department must be made prior to field installation.

NATURAL AND HYBRID/REINFORCED GRASS RESODS

For natural and hybrid grass surfaces, clubs are not permitted to complete the sodding of any areas over 400 sq. ft. within 48 hours prior to kickoff of an NFL game without advance league approval. Requests to the NFL Football Operations Department at least two weeks in advance of a re-sod over 400 sq. ft. can be made if the club wishes to re-sod within the 48-hour time frame. Each request must include the reason for the request, the square footage to be re-sodded, and contingency plans for potential weather and equipment failures that could result in a delay of the start time of an NFL game.

TABLE 2. FIELD REPLACEMENT AND REPAIR CONDITIONS AND ACTIONS REQUIRED

SURFACE TYPE	SQUARE FOOTAGE TO REPLACE (FT ²)	REQUIRED ACTION	REQUEST DEADLINE
Synthetic Turf	> 400 within 48h	League approval	1 month in advance
Synthetic Turf	< 400 within 48h	-	-
Natural / hybrid grass	> 400 within 48h	League approval	2 weeks in advance
Natural / hybrid grass	< 400 within 48h	-	-
Natural / hybrid grass	400-64,000 (partial field)	League approval	2 weeks in advance
Natural / hybrid grass	> 64,000 (full field)	Notify league	2 weeks in advance

SIGNIFICANT FIELD RENOVATIONS

Clubs performing significant field renovations must submit the renovation activity notification/request in the Field Surface Reporting System. Significant field renovations include removal and replacement of 4" or more of rootzone/subgrade material, changes to the drainage system, and/or changes to the field heating system. A notification must be submitted regardless of the time of renovation (i.e., during the off-season). A notification is not required for routine maintenance.



MP 9: SYNTHETIC TURF SCREENING FOR NEW FIELD INSTALLATIONS



APPLICABLE TO:**SYNTHETIC TURF****GAME FIELDS****NATURAL GRASS****PRACTICE FIELDS****HYBRID AND/OR REINFORCED GRASS**

Beginning in the 2026 season, installation of any **new** synthetic turf for NFL games and practices must utilize a product certified by the NFL-NFLPA's *Joint Field Surface Safety and Performance Committee's* (JFSSPC) testing and screening process, as set forth below.

**Criteria**

Only synthetic turf products within the criteria below will be allowed to be installed:

- **Peak torque ≤ 180 Nm, as measured with the BEAST;**
- **Peak g 45 g $\leq$ Peak g ≤ 90 g, as measured with the STRIKE.**

The process is currently under development and will be communicated to stakeholders with sufficient notice to plan potential field replacements beginning in 2026. Until the process is formalized, clubs planning to replace a synthetic turf game or practice field may request support from NFL Football Operations to have the candidate turf product(s) evaluated by a panel of NFL and NFLPA experts.





MP 10: ENHANCED MONITORING SITES



For outdoor game field surfaces, in the event that the testing required by MP 1 reveals that the field is not in compliance with the MP1 Criteria OR if the weather forecast for the site predicts: (i) temperatures to be below 32 degrees Fahrenheit for a period of two (2) or more days immediately preceding the scheduled game and the relevant field does not have subsurface heating; or (ii) extreme weather conditions (e.g., 12 or more inches of snow) in the two (2) days immediately preceding a scheduled game; OR a Club field manager, an NFLPA designee or a player (through an NFLPA designee) raises a specific concern about the condition of a game field to the NFL, the site will be designated as an "Enhanced Monitoring Site." In such an instance, (i) the NFL will communicate with the NFLPA's designee(s) about the site's designation and identify potential issues and any prevention and/or remediation measures to be taken to ensure that the field is suitable for NFL play on game day and implement the identified prevention and/or remediation measures. The Enhanced Monitoring Site condition will be updated via additional field testing or status reports, as appropriate, on the day of any game in accordance with Article 39, Section 11(d) of the CBA and these MPs. The NFL will update the NFLPA's designee(s) daily about each Enhanced Monitoring Site's condition, including the day of any game, as necessary.

In the event any playing surface is found to be out of compliance on game day, that stadium field manager shall initiate remedial measures as appropriate in coordination with the NFL Football Operations Department and the NFL will immediately notify the NFLPA's designee(s) and take all reasonable measures to remedy. The NFL shall regularly update the NFLPA designee(s) on game day concerning the field's condition, including remedial measures and other information relevant to the condition of the field. The stadium field manager will test the surface again prior to game-day play in accordance with Article 39, Section 11(d) of the CBA and these MPs. In the event it remains out of compliance, the NFL will also promptly communicate to the NFLPA and its designee(s) the Commissioner's ultimate determination as to whether game-play will commence as scheduled.





MP 11: PRACTICE FIELDS



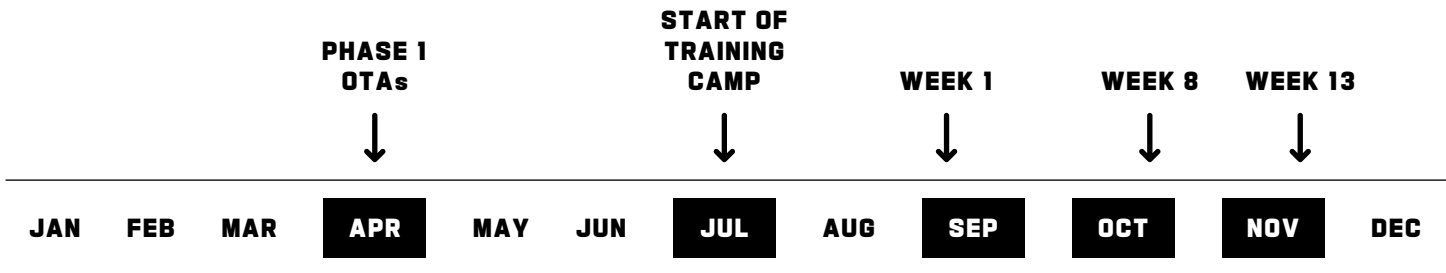
All practice fields and other practice surfaces such as supplemental practice areas expected to host NFL practice activities must be tested, inspected, and in compliance with [MPs 1, 2 or 3](#) (as applicable to the surface type), [5, 6, 8](#) and [9](#). Supplemental practice areas and other irregularly shaped practice areas should be divided into regularly distributed 964 square feet areas. Each of these areas representing one test location can be found in the Field Surface Reporting System.

 Timing and Frequency

Practice field certification must occur 72 h preceding the commencement of the specified NFL practice activities outlined in the testing schedule below.

Testing Schedule for all fields used for NFL practices

- 1. Prior to Phase 1 of Organized Team Activities (OTAs).
- 2. Prior to the first practice of training camp, including all off-site practice locations and stadium practices. If a club begins training camp at an off-site location, all fields at the off-site location must be tested and inspected prior to field use for practice. All fields at the club's home location must also be tested and inspected prior to the club practicing at the club's home location.
- 3. Prior to the first practice leading into the regular season's Week 1 game.
- 4. Prior to the first practice leading into the regular season's Week 8 game.
- 5. Prior to the first practice leading into the regular season's Week 13 game.
- 6. Any time the orientation of a practice field is changed (i.e. fields rotated 90 degrees, etc.).
- 7. Any time new sod or turf is installed on a practice field (more than 400 square feet).



General

1. Athletic Facilities: MRSA Prevention and Control. United States Center for Disease Control and Prevention. <https://www.cdc.gov/mrsa/prevention/coaches-athletic-directors.html>.

Impact testing

1. Instrumentation for Impact Test Part 1 - Electronic Instrumentation J211/1. SAE International. https://doi.org/10.4271/J211/1_202208
2. STRIKE surface impact tester operations manual. [The STRIKE - Operator's Manual](#)

Traction testing

1. Kent, Richard, Jason Forman, David Lessley, and Jeff Crandall. 2011. "Characterization of Athletic Shoe-Surface Mechanics in Situ at Loads and Rates Relevant to Game Situations." In Proceedings of the International Research Council on the Biomechanics of Injury Conference, 39:40–50. International Research Council on Biomechanics of Injury.
2. Kent, Richard, Jeff Crandall, Jason Forman, David Lessley, Anthony Lau, and Christopher Garson. 2012. "Development and Assessment of a Device and Method for Studying the Mechanical Interactions between Shoes and Playing Surfaces in Situ at Loads and Rates Generated by Elite Athletes." Sports Biomechanics 11 (3): 414–29. <https://doi.org/10.1080/14763141.2011.650188>.
3. Kent, Richard, Jason L. Forman, David Lessley, and Jeff Crandall. 2015. "The Mechanics of American Football Cleats on Natural Grass and Infill-Type Artificial Playing Surfaces with Loads Relevant to Elite Athletes." Sports Biomechanics 14 (2): 246–57. <https://doi.org/10.1080/14763141.2015.1052749>.
4. BEAST surface impact tester operations manual. [The BEAST - Operator's Manual](#)



THANK YOU