Hendrick Motorsports Flight Operations Manual

Revision 12

3.11 Pilot-In-Command - Authority

The Pilot-In-Command is the final authority for the safe operation of an assigned flight. His/her judgement regarding the safety of the flight is final. No one shall exert direct or implied pressure to influence a PIC's decision relative to the safe operation of the flight. If undue pressure is ever forced on a pilot, the individual that is applying the pressure will be reported to the Chief Executive Officer.

3.12 Flight Planning – General

Flight planning is defined as the sum total of all regulatory, company directed and prudent preparatory actions prior to flight initiation. A flight shall not commence until:

- All applicable standards have been met;
- The meteorological conditions are such that the flight can be conducted safely within the scope of regulatory and company established standards; and
- An ATC flight plan has been filed.

To ensure an adequate margin of safety, factored landing distances as prescribed by the aircraft manufacture will be used to determine runway length requirements during pre-departure planning and, when applicable, these distances will be increased per FAA document AC 91-79. Takeoffs will only be executed from runways that provide a balanced field with comfortable fuel reserves for the given conditions at the time of departure. Maximum weights for takeoff and landing will be calculated using the Factored take-off and landing charts within the aircraft flight manual (G-V, G-150, Falcon 900B, Saab 2000). In addition to the Aircraft Flight Manual (AFM), other approved methods of calculation are the onboard FMS (G-V & G-150), AFMatic (G-V), Ultra-Nav (G-150) and APG (Saab 2000 & Falcon 900B). Published distances will be used, and only runways of sufficient length to meet these requirements will be utilized. Operations on and/or off all other runways is prohibited.

3.12.1 Flight Planning Requirements

General

Each pilot-in-command shall, before beginning a flight, become familiar with all available information concerning that flight. This information shall include:

- Airworthiness status of the assigned aircraft;
- Applicable MEL limitations;
- Weather reports and forecast;
- NOTAMS (L-D-FDC-Class II)
- Applicable ARO, PPR and STMP requirements
- Fuel and oil requirements;
- Oxygen requirements;
- Weight and balance;
- Known traffic delays;
- Alternatives available if the planned flight cannot be completed;
- Airport Suitability
    - Runway lengths at airports of intended use;
    - Taxiway widths at airports of intended use;
    - Runway condition reports
    - Airport Requirements;
- Airport information contained in the AFD

- Takeoff and landing distances and required factored for contamination when appropriate
- Arrival and Departure Procedures and associated limitations
- Noise restrictions
- TFR's
- Alternate airport for departure
- Alternate airport for destination
- Alternate airport weather minimums
- Original flight release or amendment of flight release
- Fuel Supply

4.3 Command

The concept of command has changed little throughout history. The issuance of instructions by a leader and compliance with those instructions by those to whom they are issued are elements of command that apply equally to both corporate administration and flight operations.

The authority to command a flight conducted under the auspices of Hendrick Motorsports is vested in the individual designated as pilot-in-command. Such designation is a result of a properly executed trip assignment.

A properly designated pilot-in-command is charged with the ultimate responsibility for that assigned flight operation within the scope of such applicable requirements as may be conveyed as laws, regulations, policies, procedures, rules, practices, guidelines and briefings. While meeting this requirement, each crewmember shall support the operation being conducted to the limit of his/her ability.

4.4 Standardization

The use of standard procedures and terminology reduces task complexity and promotes mutual confidence and precision among participants. This applies equally to administrative tasks and flight tasks. It has long been recognized that flight operations are typically the management of a long series of tasks influenced by many variables. It follows then that not all eventualities that may occur during flight operations may be foreseen. However, experience has proven that the most distinctly professional, safe and effective operations occur when a high degree of planning, coordination and standardization exist among the participants.

The precise level of standardization desired is high enough to discourage unsafe practices, carelessness, and the development of unacceptable individualized procedures, but not so high that required operational flexibility, good judgment, professionalism and acceptable individual techniques are discouraged.

All personnel should view written guidance, practices, policies and procedures as a part of the standardization program designed to benefit all and promote a high degree of safety and confidence among all participants.

4.5 Operations – General

4.5 Security and Confidentiality

The most basic element of operations security requires restraint from loose discussion with or in the presence of persons who have no need to know the nature of HMS flight operations. Inquiries by the public in general who have no need to know facts or particulars concerning HMS operations should be left tactfully unanswered.

Specifically, persons operating under the auspices of HMS will refrain from loose conversation concerning the following:

- Passenger(s) identity.
- Origin or destination of flights.

4.5.1 Carriage of Hazardous Materials Policy

Hazardous Materials (HAZMAT) will not be transported on Hendrick Motorsports aircraft. The Pilot-In-Command is responsible for ensuring through passenger briefing and observation of baggage and cargo

Element Reported	AWOS-3	ASOS	Manual Observation
Altimeter	X	X	X
Wind	X	X	X
Temp/Dew Point	X	X	X
Density Altitude	X	X	
Visibility	X	X	X
Clouds/Ceiling	X	X	X
Precipitation		X	X
Remarks		X	X

4.6.5 Route and Airport Familiarity

The pilot-in-command shall review and familiarize his/her crew with all available information required for the safe operation of the assigned flight. This includes but is not limited to navigation facilities, communications procedures, air traffic control procedures, approach and landing procedures, terrain and obstruction hazards, NOTAMS (Class II, D-NOTAMS, L-NOTAMS, FDC NOTAMS, TFR's), minimum safe altitudes and forecast weather associated with the airports and routes to be transited.

For flights transiting high terrain, the PIC will ensure that operations will be conducted at weights providing a single engine service ceiling in excess of that required for minimum obstruction clearance altitudes for the proposed routes.

For flights OCONUS, flight crews will consult the latest International Flight Operations Manual for additional information. Except for emergency operations, night operations at any airport OCONUS requires the approval of the Director of Aviation prior to trip initiation.
Verify that suitable Navigational Aids (Navaids) are available, on all routes, which provide the degree of accuracy required by ATC. Navaids navigated on routes outside of U.S. Airspace are listed in the HMS OPSPECS except for aids required for alternate airports.

No person may release an airplane over any route or route segment unless communication and navigation facilities equal to those required in the paragraph above are in satisfactory operating condition as per **CFR 125.51**.

4.6.6 Passenger Briefing Cards

Passenger briefing cards are required one for each passenger seat aboard the aircraft. Preflight inspection shall include inspection for same. Missing or unserviceable passenger briefing cards should be reported utilizing aircraft discrepancy reporting procedures. Checking for the briefing cards is the responsibility of the pilot-in-command, but is normally delegated to the flight attendant.

4.6.7 Use of Aircraft Auxiliary Power Unit

Any time the aircraft APU is operated, at least one crew member will be in the vicinity of the aircraft to monitor safe operation of the APU.

4.6.8 De-icing and Anti-Icing

The information contained in this section provides general information regarding deicing and anti-icing operations.

4.6.12 Flight Plans

All flights conducted under the auspices of HMS shall be conducted on a flight plan filed with the FAA or, if OCONUS with the appropriate ATC authority.

All missions conducted under the auspices of HMS will be conducted on an IFR Flight Plan unless operational considerations clearly require otherwise. PIC's are expected to exercise the utmost of prudence in this regard. Training and functional test flights may be conducted on a VFR flight plan if: subject flight is conducted within 50 NM of KJQF; compliance with applicable VFR weather criteria is assured; and ATC radar flight following is utilized clear of the airport traffic pattern.

4.7 Ground Operations - General

Ground operations are defined as those operations commencing with the initiation of engine start and continuing until the aircraft is in position on the runway for departure. Most tasks associated with ground operations are predictable and routine while others may be greatly influenced by such factors as weather, traffic congestion or aircraft limitations.

Many risk factors are associated with ground operations. Crewmembers must exercise discipline in conducting ground operations in a deliberate and thorough manner taking all existing conditions potentially affecting safety into consideration.

4.7.1 Flows and Checklists Philosophy

Most procedures are accomplished by a flow-check combination. After a flow is completed, the checklist will serve to verify critical items/procedures have been accomplished.

- A flow pattern is the stringing together of items to be performed in a logical order to increase efficiency. Flows contain items that may not be subsequently challenged or checked by the checklist.

When used with a flow philosophy, all checked items will be completed prior to calling for the check, excluding "Do-Read" checks ("Do-Read" checks require the action be performed as the checklist is being read, as opposed to a flow-check). Refer to aircraft standard operating procedures for specific guidelines.

The completion of checklist items will be suspended anytime safety or crew vigilance during ground operations is compromised. Completion of the checklist will resume when those compromising operational factors are no longer present.

4.7.2 Economy

Crewmembers should make reasonable efforts to secure ATIS/ASOS information, ATC clearance and engine start times prior to engine start in the interest of saving fuel, minimizing ramp noise and maximizing passenger comfort. Single engine taxi is not permitted.

4.7.3 Engines Starting

Engine(s) start will not commence until: both crewmembers are seated on the flight deck; the checklist has been completed up to engine starting; all operational distractions are resolved and the area about the aircraft is visually confirmed clear. Engine(s) starting will not commence if any doubt exists as to whether the area about the aircraft is clear of personnel that might be injured or equipment that might be damaged due to engine(s) start.

4.11.2 Descent Economy and Planning

Air traffic control and weather permitting, descent planning and execution should take maximum advantage of the kinetic energy of the aircraft in terms of speed and altitude. Adjust the top of descent point for known factors that will affect descent distance. Operator manual descent charts are presented for zero wind conditions, and should be adjusted for head or tailwind components.

Maintain cruise altitude until the proper distance or time out for the planned descent. Deviations from the planned descent schedule should be avoided if possible to prevent unnecessary fuel consumption and vectoring.

4.11.3 Rate of Descent

If an altitude of 1,000 feet or less is required, descend at a rate of not more than 500 feet per minute. If an altitude change of more than 1,000 feet is required, descend as rapidly as practicable to 1,000 feet above the assigned altitude, then reduce rate of descent to approximately 500 feet per minute until the assigned altitude is reached.

4.11.4 Icing Conditions

Depending upon ambient surface temperature at the destination airport, any structural ice accumulated enroute or during descent and arrival operations may be carried through to landing. Pilots should be alert to weather conditions during descent operations that could produce structural ice formation of a compromising nature and take appropriate action considering all factors.

At night the presence of weather conditions that may contribute to airframe ice formation or require the use of engine anti-ice systems is difficult to assess. Engine icing often forms when not expected due to low pressure zones established about the air intake and may occur day or night when their is no evidence of icing on the windshield or other parts of the aircraft. Once ice commences to form, an appreciable accumulation can build rapidly. When in doubt - TURN ANTI-ICING SYSTEMS ON.

4.11.5 Crew Briefing

During the descent and arrival phase, the pilot flying (PF) will establish with the pilot-not-flying (PNF) plans for completing the descent, approach and landing phases of operations. Both crewmembers will review applicable instrument approach procedures and missed approach procedures and confirm mutual understanding of the approach and landing plan to include applicable airspeeds and aircraft configurations. Questions regarding potential wind-shear, wake turbulence, icing, runway surface conditions and configuration should not be left unresolved.

4.12 Approach Operations - General

The approach phase of flight commences at the initial approach fix during IFR operations and gear extension during VFR operations and extends to a point at which the aircraft is committed to land. The point of commitment to land is normally considered to be the TCH (Threshold Crossing Height) on a normal glide path.

Approach operations should be executed as smoothly as conditions permit. Passengers should sense a stabilized approach. Turns should be as gentle and moderate as conditions permit.

Aircraft speed (Vref) will vary according to the predicted landing weight of the aircraft. Determine the approach speed suitable for existing conditions. Always be alert for the subtle evidence of potential or impending wind shear, wake turbulence or microburst.

The pilot flying (PF) should have one hand on the yoke and the other hand on the power levers during the final approach phase until final power reduction for landing, particularly when a heightened possibility of wind shear or wake turbulence exist.

Flight crews are expected to maintain a sterile cockpit environment during all approach and landing operations. Established crew coordination procedures shall be utilized. Any crewmember becoming concerned with the flight path of the aircraft or any operational matter affecting safety shall declare the same in a clear and respectful manner. Approach minimums shall be observed.

4.12.1 Visual Approaches

A visual approach path of 2-1/2 to 3 degrees is considered normal. Once the final approach path is established only small adjustments need be made to glide path, approach speed and trim.

When approaching to land on a runway served by an ILS, fly the aircraft at an altitude at or above the glide slope between the outer marker (or the point of interception of the glide slope) and the middle marker. An airplane approaching to land on a runway served by a visual approach slope indicator (VASI), will maintain an altitude at or above the glide slope until a lower altitude is necessary for a safe landing.

4.12.2 Instrument Approach Procedures

Review and comply with Operations Specifications Part C052-1.

Many hazards are associated with the landing phase of flight. Approximately 80% of all aircraft accidents occur during takeoff and landing operations. The importance of understanding the many factors involved in executing a safe instrument approach and adhering to established procedures cannot be overemphasized.

Many instrument approach procedures are quite simple and straight forward in their design and complexity while others have numerous notes and symbols affecting altitudes, landing minimums and other requirements based upon numerous factors and conditions.

Pilots must exercise vigilance in studying approach procedures thoroughly and exercise prudence in their execution. All questions relating to the procedures to be followed shall be resolved prior to execution of an approach.

No person may make an instrument approach at an airport except in accordance with IFR weather minimums and unless the type of instrument approach procedure to be used is listed in the HMS Operations Specifications.

Regardless of any clearance from ATC, if the reported weather conditions are less than that specified in the certificate holder's operations specifications, no pilot may, except as provided in the paragraph below, land an airplane under IFR, nor execute an instrument approach procedure if the latest reported visibility is iess than the landing minimums specified in Hendrick Motorsports operations specifications.

If a pilot initiates an instrument approach procedure based on a weather report that indicates that the specified visibility minimums exist and subsequently receives another weather report that indicates that conditions are below the minimum requirements, then the pilot may continue with the approach only if, the requirements of §91.175(l) of this chapter, or both of the following conditions are met:

- The later weather report is received when the airplane is in one of the following approach phases:
  - The airplane is on a ILS approach and has passed the final approach fix;

Alternate Airport IFR Weather Minimums
[sm = statute mile]

Approach Facility Configuration	Ceiling	Visibility
For airports with at least one operational navigational facility providing a straight-in nonprecision approach procedure, or a straight-in precision approach procedure, or, when applicable, a circling maneuver from an instrument approach procedure.	A ceiling derived by adding 400 ft. to the authorized Category I HAT or, when applicable, the authorized HAA.	A visibility derived by adding 1 sm to the authorized Category I landing minimum.
For airports with at least two operational navigational facilities, each providing a straight-in nonprecision approach procedure or a straight-in precision approach procedure to different, suitable runways. (However, when an airport is designated as an ER-OPS En Route Alternate Airport in these operations specifications, the approach procedures used must be to separate, suitable runways).	A ceiling derived by adding 200 ft. to the higher Category I HAT of the two approaches used.	A visibility derived by adding ½ sm to the higher authorized Category I landing minimum of the two approaches used.

4.12.5 IFR Landing Minimums (PIC High Minimums)

If the pilot in command of an airplane has not served 100 hours as pilot in command in the type of airplane being operated, the MDA or DA/DH and visibility landing minimums in the Hendrick Motorsports operations specification are increased by 100 feet and one-half mile (or the RVR equivalent). The MDA or DA/DH and visibility minimums need not be increased above those applicable to the airport when used as an alternate airport, but in no event may the landing minimums be less than a 300-foot ceiling and 1 mile of visibility.

The 100 hours of pilot-in-command experience required in the paragraph above may be reduced (not to exceed 50 percent) by substituting one landing in operations under this part in the type of airplane for 1 required hour of pilot-in-command experience if the pilot has at least 100 hours as pilot in command of another type airplane in operations under this part.

4.13 Landing Operations - General

Landing operations are defined as those operations extending from TCH on normal glide path through touchdown and rollout until clear of the runway. "Go-around" procedures shall be initiated on any approach and landing when in the judgment of the crew continuation of the approach or landing would compromise safety.

There is no stigma attached to a "go-around", nor necessarily any implication of poor crew performance. Crews should maturely and professionally accept the occasional requirement for a "go-around" in the normal course of flying activity.

4.13.1 Hydroplaning

A film of water on runways can seriously affect aircraft ground controllability and braking efficiency. As the speed of the aircraft and the depth of standing water increase, the water layer builds up an increasing