Systems and Procedures Validation Q & A AIRBUS A330 March 8, 2015 to April 30, 2015
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Preflight.

1. ICAO requires all airlines to carry a copy of several different documents on board each airplane. All of these documents are in the _ Cockpit Forms (Yellow) Book _ or mounted somewhere in the airplane, usually in the cockpit.
Reference: FM 18.5.2

2. If a flow or checklist is preceded by the diamond symbol (◆), that item is accomplished only on the first flight of the day (i.e., the first flight entered into the FDML under the current day using local time).
Reference: OM Vol I 2.2.4 *and* SOPs 1.2

4 Items - Captain: Fire Test, Batteries, Alternate Brakes, F/O: Flight Deck Door

3. It is the __Captain's__ responsibility to ensure that no condition exists that prohibits use of Flex Thrust even though it appears on the TPS.
Reference: PM 1.3.8

4. The PWS Advisory, Caution and Warning alerts are inhibited during takeoff from__100__ knots until __50__ feet AGL.
Reference: OM Vol I 2i.3.3

The PWS Advisory, Caution and Warning alerts are inhibited during approach below 50 feet AGL.

Predictive Windshear Alerts			
	ADVISORY	**CAUTION**	**WARNING**
INDICATIONS:			
ND	Windshear Icon		
PFD	(N/A)	Amber **W/S AHEAD**	Red **W/S AHEAD**
AURAL		**"MONITOR RADAR DISPLAY"**	**"WINDSHEAR AHEAD"** (Twice on takeoff) **"GO AROUND WINDSHEAR AHEAD"** (On approach)
Predictive Windshear Recovery Actions			
PHASE OF FLT:			
Aligned for Takeoff	Delay the takeoff until the alert no longer exists.		
Prior to V1	TOGA. Continue the takeoff	Reject the takeoff if sufficient runway remains.	
At or Above V1	• TOGA • Rotate no later than 2,000 feet of runway remaining • Follow SRS commands *(note - continued on next page)* • Retract gear and flaps on schedule If a PWS Warning occurs – roll wings level unless terrain is a factor in order to maximize aircraft performance.		
During Approach	Continue the approach	• Execute a normal go-around using TOGA thrust. • Retract gear and flaps on schedule.	

Note: *Reactive* windshear detection is activated from rotation up to 1300 feet RA during takeoff and 1300 feet to 50 feet during approach.

5. During the Safety & Power On Checklist, if battery voltage < 25.5V, a charging cycle of _ 20 minutes _ minutes is required.

Reference: OM 2a.2.1

If battery voltage < 25.5V:
• A charging cycle of 20 minutes is required
• Continue checklist and establish electrical power

6. The Configuration Deviation List (CDL) program allows for the dispatch of an aircraft with certain parts that may be missing providing performance limitations are followed.
Reference: FM Part I 5.4.4

7. During the Safety & Power On Checklist, before starting the APU, ensure an APU FIRE TEST is accomplished.
Reference: OM 2a.2.2

Before starting the APU, ensure an APU FIRE TEST is accomplished (see paragraph 2a.7.3, "Expanded Flow", "APU FIRE Panel" flow item).

8. A __yellow__ placard is used for MEL/CDL items when a maintenance procedure requires repetitive action at a defined frequency.
Reference: FM Part I 5.4.10

9. The Flightdeck Preparation Flow should be accomplished on the first flight of the day, after a crew change or flights further than 162 NM from the nearest shoreline. This flow should also be accomplished if after maintenance has been performed in the flightdeck, or if the flightdeck has been left unattended and not in view of a pilot crewmember. *Reference:* OM 2a.6.1 *and* 2a.7.2 *and* 2a.8.2

Accomplish on the first flight of the day, after a crew change, prior to an oceanic flight, after maintenance has been performed in the flightdeck, or when the flightdeck has been left unattended and not in view of a pilot crewmember. Start early enough to ensure all equipment is operating properly and to allow maintenance *sufficient* time to correct any irregularities.

10. Flight Attendants are responsible for reporting all cabin discrepancies not previously recorded to the flightdeck. The FA will complete a Cabin Discrepancy Worksheet located in the Cabin Book.
Reference: FM Part I 5.4.37

The Cabin Book is located in the forward cabin galley or closet and contains:
— the Non-Essential Equipment and Furnishings List (NEFL)
— the aircraft-specific Deferred Items List of NEF items previously recorded and deferred
— a pad of Cabin Discrepancy Worksheets used by the F/As as a communication tool to report a cabin Discrepancy to the flightdeck
— additional aircraft-specific items such as noise information and Mexican insurance documents that may be required for international operations. See also paragraph 14.2.12 Noise Certification or Mexican Insurance.

Captain - Upon receiving a Cabin Discrepancy Worksheet:
— check if the discrepancy is currently on MEL
— check if the discrepancy has been NEF deferred in the FDML by Maintenance after the most recent "Aircraft Certified Airworthy" signoff (will not yet appear on the Deferred Items List)
— write-up all new cabin discrepancies in the FDML
  • Multiple similar discrepancies (e.g., multiple inoperative reading lights) can be recorded on the same FDML page as long as the locations are documented. Different discrepancies (e.g., reading light and a broken window shade) must be entered into separate FDML pages.
— report the discrepancy to maintenance (if enroute, use the Early Alert function in ACARS. See FOM 2.4.3 Mechanical Discrepancies In-Flight, Early Alert)
— discard the worksheet

11. According to the DOT Tarmac Delay policy, an opportunity to deplane ONLY exists if the passengers onboard a delayed aircraft are notified every 30 minutes of the ability to deplane with the door open past departure time. *Reference:* FM Part I 13.3.1

DOT regulations require that passengers be given delay status PAs. Each PA must inform passengers of the delay status (including the reason of the delay, if known).

Departing flights must receive delay status PAs every 30 minutes after schedule departure time (including any revised departure time that passengers were notified or before boarding).

Arriving flights must receive a delay status PA every 30 minutes after landing.

During departure delays at the gate, opportunity to deplane announcements must also be made beginning 30 minutes after scheduled departure time (or revised departure time passengers were notified of before boarding), and every 30 minutes thereafter.

The OCC delay clock is set to "start" with the generation of an ACARS OUT time (or ON time in the case of arrivals). The delay clock for the captain begins at Scheduled departure time. In order to align the clocks at departure, a reset per this regulation will be accomplished by making the "Opportunity to Deplane" PA just prior to cabin door closure for all departures. This PA will be made by the A-F/A.

Passengers should be told that they may not be able to reboard if they choose to deplane.

For arrival delays where optional gate or remote deplaning will be offered but deplaning is not mandatory, opportunity-to-deplane announcements must be made before the applicable three or four hour time limit. The ability to deplane and be transported to the terminal must exist in order for this to apply.

Each opportunity to deplane announcement resets the applicable three or four hour clock.

12. (True or False) When a request is made to reopen a cabin door prior to departure, all doors will be disarmed.
Reference: FM Part I 8.1.10

If a cabin door needs to be reopened for any reason:
- The A-FA will advise the captain a door needs to be reopened (or the captain may advise A-FA, e.g., maintenance).
- When the aircraft is in a position for a door to be reopened (e.g., at the gate and stopped) advise A-FA door can be reopened.
- All doors will be disarmed prior to any cabin door being reopened.

13. The Takeoff Performance System (TPS) is the primary source of takeoff data.

Reference: PM 1.1.1

14. A weight restricted flight is designated when the planned weight of the aircraft is within 1500 lbs. of any structural or inflight weight limitation. The flight crew will send an ACARS message of the actual FOB as soon as possible after fueling.
Reference: FM Part I 6.1.16,

A weight restricted flight is designated when the planned weight of the aircraft is within 1500 lbs. of any structural or in-flight weight limitation. The captain and dispatcher will consult to verify that an excess fuel load is not precluding the accommodation of revenue. The flight crew will send an ACARS message of the actual FOB as soon as possible after fueling. Additionally, a weight restricted flight will be held at the gate by the Ramp Lead or Gate Agent until the Load Agent has determined that the final passenger count and cargo weights have not caused the aircraft to exceed any certified weight limitations.

15. Do not use the MCDU's VHF3 VOICE DIRECTORY and COMPANY CALL pages to tune VHF3 in voice mode. Only use RMP3 to tune VHF3 in voice mode.
Reference: OM Vol I 1.11.7

16. A fuel slip is only required if there is a placarded MEL item that requires reference to a current fuel slip.
Reference: FM Part I 7.3.5

17. The APU may be started and operated even if the LOW OIL LEVEL ECAM advisory is displayed. Maintenance action is required within the next 15 hours of APU operation.
Reference: OM Vol I 1.13.4

18. The ___Captain____ will establish the time at which the aircraft would have departed the gate had the departure not been subject to one of three conditions.
Reference: FM Part I 7.2.5

When an aircraft is ready to depart, but is blocked from beginning its pushback, power back or taxi away from the gate because of aircraft or vehicular traffic, the captain will not release the brakes, but may note the time when the aircraft was ready for movement. This also includes a delay at the gate due to congestion at the remote deicing location. This does not apply to delays where deicing is performed on the gate. A Brake Release Claim form is available in the flight office as well as Wings. The following information must be provided; name, employee number, contact phone number, flight number, city pair, scheduled departure time, time when brake release could have happened, actual in/out time, an explanation and number of minutes claimed. If you are unable to submit the form to the flight office, you may give the staff the information over the phone during normal business hours. The captain has sole responsibility for the decision to identify and submit a Brake Release Claim form.

19. TPS will choose the flap configuration that can achieve the maximum assumed (flex) temperature.
Reference: PM 1.1.3

TPS will choose the flap configuration that can achieve the maximum assumed (flex) temperature. If none of the flap configurations can achieve flex thrust, CONF 2 will be selected unless the PTOW is too heavy for CONF 2. Then the flap configuration that can accommodate the PTOW will be chosen.

The flap configuration determined for the primary runway is used for all of the other runways. The flap configuration specified by TPS does not preclude the flight crew from requesting / using a different flap configuration.

20. The first runway displayed on the TPS is referred to as the "primary" runway. On secondary runways, if an asterisk appears next to the flap setting, it indicates that another _another flap setting_ would be more advantageous for this runway.
Reference: PM 1.2.3 and 1.1.3

On secondary runways (other than the first runway), if an asterisk (*) appears next to the flap setting, it indicates that another flap setting would be more advantageous for this runway. If this is the case and time permits, get new TPS data.

21. If the temperature on the TPS is colder than __15°C _, the AIRPORT ANALYSIS section will show Engine Anti-ice corrections for the Climb and Runway limits.
Reference: PM 1.2.5

Temperature Colder than 15°C.
If the temperature on the TPS is colder than 15°C, the AIRPORT ANALYSIS section will show Engine Anti-ice corrections for the Climb and Runway limits. The Climb and Runway limit data will not be corrected by TPS.
Temperature 10°C or Colder and Dispatcher Selects Anti-Ice ON.
If the temperature on the TPS is 10°C or colder **and** the dispatcher selects Engine Anti-ice ON in the TPS system:

- THRUST / V-SPEED section will indicate ANTI-ICE ON and **all** of the data in the THRUST / V-SPEED section will include the Anti-ice corrections, as appropriate.
- AIRPORT ANALYSIS section will show corrections as illustrated above. The climb and runway limit data in the AIRPORT ANALYSIS section will not be corrected by TPS.

22. A variance of ± 300 lbs. in the trim tank is acceptable.
Reference: PM 2.4.1

23. For a contaminated runway, the dispatcher can provide V-speeds on the _Contaminated Runway Correction Message__. But these speeds will not be shown on the TPS.
Reference: PM 1.3.2

The dispatcher cannot adjust the V-speeds in TPS if the MTOW is manually entered (D suffix on MTOW). It is the responsibility of the flight crew to make the appropriate adjustments, if required.

Start.

24. Approximately 10 minutes prior to departure and after Route Verification is completed, _Start the APU (if not already running)_ before accomplishing the Before Start Flow.
Reference: OM Part I SOPs.3

25. The Before Pushback Flow is used to prepare for pushback and starting the engines. The triggers for the Pushback Flow are _receiving the cabin ready notification_ and _all doors are closed and armed_.
Reference: OM Vol I 2b.6.2 *and* SOPs. 3

26. The Before Start Checklist states "PARK BRK….ON, Checked". The Pilot Handbook requires the captain to reference the _brake triple indicator_ whenever the PARK BRK is set ON or OFF.
Reference: OM Part I 2.5.17 *and* 2.b.9

Check the brake triple indicator to confirm that all indications are normal for brakes ON (i.e., pressure indicated on both brakes and the accumulator.)

The captain will reference the triple indicator whenever the PARK BRK is set ON or OFF.

- ON: Accumulator in the green band. Brake pressure is applied to both left and right brakes.
- OFF: Brake pressure is released on both left and right brakes.

27. Operate engines for at least _5_ minutes prior to applying takeoff thrust to allow engine temperature to stabilize. The warm-up can be reduced to a minimum of _3_ minutes (workload permitting) if an engine has been shutdown for _one and a half_ hours or less.
Reference: OM Part I 2b.11.5

28. If the towbar breaks or the airplane becomes disconnected from the tug during pushback the guideman will advise the captain "brakes ".
Reference: OM Vol I 2b.10.5

The airplane must be inspected by Maintenance prior to continuing operations. Since the inspection is external only, it may be completed on or off gate as long as Maintenance can access the AML. If no damage is found, pushback operations may be continued using a new towbar. An AML entry must be signed off by an Aircraft Maintenance Technician.

29. A supplemental procedure is a procedure used in lieu of a normal procedure in certain circumstances. Pilots may accomplish the supplemental procedure from memory, by reviewing the procedure prior to its accomplishment, or _by reading the procedure during its accomplishment_.
Reference: OM Part I 4.1.2

Pilots may accomplish the supplemental procedure

- from memory,
- by reviewing the procedure prior to its accomplishment, or
- by reading the procedure during its accomplishment.

Supplemental procedures are located in PH, Chapter 4, and are arranged by aircraft systems.

30. During the Before Start Flow, check engine oil quantity is at or above __16__ quarts for the A330-200 and at or above __18___ quarts for the A330-300.
Reference: OM Vol I 2b.3.3 / OM Part I 2b.4.3

Taxi.

31. Do not attempt a 180° turn on a surface less than 200 feet wide.
Reference: OM Part I 2c.3.8

32. For a mechanical discrepancy after gate departure, if the discrepancy is associated with an ECAM Message, the crew must refer to the ECAM/MEL __Cross Reference Table__ located at the front of the MEL.
Reference: OM Vol I 2c.1.1

See MEL Manual, Front Matter, Intro-3, and FM Part I, 5.4. If a fault is cleared using ECAM/QRH procedures, make an "INFO-ONLY" write-up in the AML (See FM Part I, 5.4 Mechanical Discrepancy Entries). If the discrepancy is associated with an ECAM Message, refer to the ECAM/MEL Cross Reference Table, located in the MEL.

33. It is procedure to use a D2 climb whenever possible when operating the A330-200. This may be entered in the MCDU during _ preflight _ or anytime during the CLB phase.
Reference: OM Part I 2e.3.2

Procedure.
1. Use D2 whenever possible. This may be entered in the MCDU during ***preflight*** or any time during the CLB phase.
2. Revert to D1 or completely remove derate climb if the rate of climb decreases below 500 feet per minute or when required to:
- meet a published or ATC-assigned altitude constraint
- expedite a climb for traffic or weather/turbulence avoidance
- reach the oceanic crossing altitude before the oceanic entry point.

3. Re-enter D2 when D1 or MCL is no longer required.
Note **-** Derate climb does not change the maximum altitude attainable as it gradually phases out between 31,000 to 36,000 feet.

34. Before crossing an intersecting runway, scan the full length of the runway for potential conflicts and verbalize "clear left, clear right".
Reference: OM Vol I 2c.2.3

Before crossing an intersecting runway:
- Scan the full length of the runway for potential conflicts and verbalize "***clear left, clear right***".
- Ensure red runway entrance lights (RELs), if installed, are not illuminated. If they are illuminated, do not cross the hold short line and advise ATC.
- Illuminate both the taxi and landing lights during low visibility and night operations. All lighting that will increase the visibility of the aircraft must be illuminated.

Prior to crossing the hold short line:
- Verify assigned runway by whatever means available.
- Monitor TCAS display for approaching traffic, if able.
- Scan any short final area(s) and runway(s) for potential conflicts and verbalize "clear left, clear right".
- If red runway entrance lights (RELs) are installed, ensure they are not illuminated. If they are illuminated, do not cross the hold short line and advise ATC.

When cleared onto the runway:
- At night, turn on lights (except for landing lights) that highlight the aircraft's silhouette.
- During low visibility operations at SMGCS approved airports precisely follow green lead-on lights and low visibility markings.

When on the runway:
- During low visibility and night operations slightly offset the aircraft from runway centerline to avoid blending in with the runway lights.
- If holding in position for more than 90 seconds, or upon seeing a potential conflict, contact ATC.

When cleared for takeoff:
- Illuminate landing lights
- Ensure red takeoff hold lights (THLs) are not illuminated. If they are illuminated, do not takeoff and advise ATC.

35. Do not use differential braking when taxiing or turning at speeds below __20__ knots.
Reference: OM Part I 2c.3.6

36. For acceptable RVSM altimeter tolerances, ground check PFD 1 and PFD 2 with a known airport altitude within +/- __75__ feet and altitude tolerance between PFD 1 and PFD 2 within __20__ feet.

Reference: OM Part I 1.16.1

- Ground check PFD 1 and 2 with a known airport altitude ± 75 feet
- Altitude tolerance between PFD 1 and 2 within 20 feet

Note: If the altimeters are not within ±75 feet, it is acceptable to check the altimeter accuracy at a known elevation point on the airport (i.e., runway end elevation). If the altimeters do not read within ±75 feet, or do not agree with each other within 20 feet, maintenance action is required.

The maximum allowable in-flight difference between captain and first officer PFD altitude displays for RVSM operations is 200 feet.

37. If a fuel is entered that differs from Plan by _4,000_ lbs or more, an appropriate ACARS message will be received. If reentered, the fuel value is accepted, even if in error.
Reference: PM 2.3.1

If a fuel is entered that differs from Plan by 4000 lbs or more, an appropriate ACARS message will be received. If reentered, the fuel value is accepted, even if in error. Anytime the fuel value entered via ACARS differs significantly from plan, an error message is sent to prompt the Load Agent to verify the fuel load.

38. On the ground after departing the gate, what requirements must be met before a cell phone may be used for operations?
Reference: OM Vol I 2b.1.10

Ensure all PED cellular service is turned off prior to pushback (including any jumpseat riders). On the ground after departing the gate, ***a cell phone may be used for operations only if the aircraft is stopped and the parking brake set. After its use, ensure the cell phone is off prior to releasing the brakes.***

Pilots on duty occupying a flightdeck seat may not access paper-based or electronic-based reading material and information, not directly related to the operation of the aircraft. Jumpseat riders and resting pilot(s) occupying the jumpseat may access paper-based or electronic-based reading material and information unrelated to the operation of the aircraft as long as it does not disrupt other flightdeck crewmember performance and is stowed according to passenger procedures. See FOM 5.2.2, "Portable Electronic Devices (PEDs)."

Takeoff.

39. All takeoffs performed by US Airways crews meet noise abatement criteria. For a "Normal Takeoff Profile", climb thrust is selected and acceleration is initiated at _1,000_ feet AFL. For a "Noise Abatement Profile", climb thrust is selected at _1,500_ feet AFL and acceleration is initiated at _3,000_ feet AFL.
Reference: OM Vol I 2d.1.1

Normally this is automatically triggered in accordance with the THR RED and ACC values entered in the PERF Takeoff page.

Normal Takeoff Profile (NADP 2). Crews will perform a Normal Takeoff Profile at a domestic airport and/or when the Airport Advisory page states the Normal Takeoff Profile procedure is to be used.

Noise Abatement Profile (NADP 1). Crews will perform a Noise Abatement Profile from an international airport and/or when the Airport Advisory page states the Noise Abatement Profile procedure is to be used.

40. In the event of a trim tank forward transfer pump failure, do not select the trim tank forward when the pitch attitude is above _3_ degrees to avoid inadvertent fuel aft transfer.
Reference: OM Vol I 1.6.4

41. The maximum crosswind component for takeoff and landing is 29/G32 knots.
Reference: OM Vol I 1.3.1

Maximum crosswind values have been demonstrated with flight controls in normal law as well as direct law with and without yaw damper.

42. A FLEX temperature was not entered in the MCDU and the thrust levers are positioned in the FLEX detent during the takeoff roll resulting in an ENG FLEX TEMP NOT SET message to appear on the ECAM. The crew should __set TOGA thrust and continue the takeoff roll___.
a. reject the takeoff
b. do nothing and continue the takeoff roll
c. ***set TOGA thrust and continue the takeoff roll***
Reference: OM Vol I 2d.1.2

When the thrust levers are moved to the TOGA detent, the warning will be cancelled.

43. Both outboard ailerons are normally controlled by PRIM 3; the left and right inboard ailerons are normally controlled by _PRIM 2_ and PRIM 1_ respectively.
Reference: OM Vol II 9.1.3

Each outboard aileron is powered by the green and yellow hydraulic systems; each inboard aileron is powered by the green and blue hydraulic systems. Each aileron has two actuators (one active and the other in damping mode). If the operating actuator fails, the inactive actuator becomes active to maintain aileron control. The ailerons droop when the flaps are extended.

At high speed (in CONF 0), the outboard ailerons are controlled to zero deflection. This occurs above 190 knots, unless in autopilot mode or in the case of some failures, where it occurs above 300 knots.

44. At VR, initiate the rotation to achieve a continuous rotation with a rate of about 3° per second toward a pitch attitude of _15°_.
Reference: OM Vol I 2d.3.1

At VR, initiate the rotation to achieve a continuous rotation with a rate of about 3° per second toward a pitch attitude of 15°. Minimize lateral inputs on the ground and during rotation, to avoid spoiler extension. After lift-off, follow the SRS pitch command bar. Once a positive rate of climb has been established, the PM states "Positive Rate," and the PF commands, "Gear Up."

45. The last waypoint that is common to both the SID and the associated EOSID is known as the _diversion waypoint_. After this point, the courses for the SID and the EOSID begin to diverge.
Reference: OM Vol I 2d.8.11

This waypoint may be a fixed waypoint or a pseudo waypoint. After this point, the courses for the SID and the EOSID begin to diverge. If an engine failure is detected by the FMGS and the aircraft has not yet reached the diversion waypoint, the EOSID will be displayed on the MCDU F-PLN page as a temporary flight plan and may then be inserted into the primary flight plan. If an engine failure is detected after the aircraft has passed the diversion waypoint, or the Temp FPLN is not inserted prior to this point, the EOSID will not be available to insert into the primary flight plan, however, the ND will display the EOSID as a yellow, dashed path that may be used for orientation.

Climb.

46. During initial climb, with all engines operating, adjust the pitch attitude to follow the F/D commands. Engage the autopilot by _500_ feet AGL for all RNAV departures.
Reference: OM Vol I 2d.3.2

47. Engine anti-ice must be on during all ground and flight operations when icing conditions exist or are anticipated, except during climb and cruise when the temperature is below _-40_ °C SAT.
Reference: OM Vol I 1.5.2

Definition of Icing Conditions:
- OAT (on the ground and for takeoff) or TAT (inflight) is 10 °C or below, and
- visible moisture in any form is present such as clouds, fog with visibility of one mile or less, rain, snow, sleet and ice crystals, or
- when operating on ramps, taxiways, or runways where surface snow, ice, standing water, or slush may be ingested by engines, freeze on engines, nacelles, or engine sensor probes

48. When making autoflight systems inputs (FMS or FCU), crews should _Confirm_, _Activate_, _Monitor_ and _Intervene_ if necessary.
Reference: OM Vol I 2.9.3

When making autoflight systems inputs:

- **C**onfirm FMS inputs with the other pilot when airborne.
- **A**ctivate the input.
- **M**onitor mode annunciations to ensure autoflight system performs as desired, and
- **I**ntervene if necessary.

49. What are the Maximum Rate of climb speeds?
Reference: OM Vol I 2e.3.2 and 2e.3.3

Use OP CLB and ***250 KIAS/.78M***

Angle. Maximum angle climbs are normally used for obstacle clearance, or to reach a specified altitude/flight level in a minimum distance. Its value varies with gross weight. GREEN DOT speed approximates the maximum angle
climb speed.

Rate. Maximum rate climb speed is normally used to reach a specified altitude/flight level in a minimum time. The maximum rate climb speed is 250 KIAS/.78M.

Cruise.

50. During a RVSM Flight Altimeter check, when initially established in cruise flight, at or above FL290, crosscheck each PFD altimeter and the standby altimeter. Record the results for use in contingency situations. The two (2) PFD altimeters must agree within 200 feet at all times within RVSM airspace.
Reference: OM Vol I 2e.8.1

51. When above FL250, the pilot at the controls shall don an O2 mask when the other pilot at the controls leaves his seat. All pilots shall don their O2 masks with cabin altitude above 10,000 feet.
Reference: OM Vol I 2e.8.2

52. Pressing the EMERGENCY pressure selector on the Crew Oxygen Mask creates an overpressure which eliminates condensation and prevents smoke, smell or ashes from entering the mask. Overpressure supply is started automatically when cabin altitude exceeds 30,000 feet.
Reference: OM Vol II 16.2.1

53. Periodic system checks are required throughout the flight. One recommended method is to perform a HEFOE (Hydraulic, Electric, Fuel, Oxygen, Engine) check approximately every hour at or abeam the closest flight plan waypoint.
Reference: OM Vol I 2e.8.3

Page	Check
HYD	Quantity and pressure • Fluid contraction during cold soak can be expected. A slight increase in quantity is normal. • Following landing gear retraction, green system quantity is lower than on the ground.
ELEC	Parameters, GEN loads
FUEL	Fuel quantity, temperature[1], and distribution
DOORS	**O**xygen pressure
ENG	Oil pressure and temperature

[1]Fuel temperature is ECAM monitored. Periodic checks not required.

54. The Cargo Smoke DISCH pb is listed as a " Confirm item " item under the Non-Normal methodology. Two extinguisher bottles discharge through either the nozzles in the forward compartment or through the nozzles in the aft and bulk compartments.
Reference: OM Vol I 9.1.5 / OM Vol II 8.1.4

55. For LUS, make an INFO-ONLY discrepancy entry in the FDML for intermittent/temporary malfunctions that have been corrected. If the malfunction has been previously written up in the FDML two or more times (excluding this occurrence) in the past 10 days, do not add "INFO-ONLY" to the discrepancy section, and contact MOC.
Reference: FM Part I 5.4.14

Make an INFO-ONLY discrepancy entry for:
- items that need to be relayed to maintenance but are not discrepancies (e.g., no de/anti-icing worksheets on aircraft)

- intermittent/temporary malfunctions that have been corrected (e.g., malfunction indication that clears by itself or through pilot action).

Start the discrepancy with the text, "INFO-ONLY." Example: INFO-ONLY - no de/anti-icing worksheets on aircraft.

A corrective action must be completed prior to the next dispatch. If at a non-maintenance base, contact MOC through the controlling dispatcher.

56. There is no requirement to correct a fuel imbalance inflight unless an _ECAM fuel advisory_ is displayed.
Reference: OM Vol I 4.3.4

There is no requirement to correct an imbalance, unless an ECAM fuel advisory is displayed.

57. When accomplishing non-normal procedures, the PF calls for the "QRH procedure" in case of an ECAM Exception or Non-Normal procedure that is not indicated by ECAM. The PF calls "ECAM Action" in case of ECAM procedures that are not ECAM Exceptions.
Reference: OM Vol I 9.1.4

Note: See expanded discussion in Simulator Callouts and Briefing Guide on www.airbusdriver.net .

58. Upon entering a holding pattern, the total fuel on board will be calculated every _15_ minutes by the __First Officer__.
Reference: OM Vol I 9.2.3

Upon entering a holding pattern, the total fuel on board will be calculated every 15 minutes by the first officer. After each calculation, the captain will be advised of the fuel remaining, holding time remaining and any other information required to ensure that adequate fuel remains to continue to the destination or alternate.

59. The APU in-flight start reliability program allows up to 3 start attempts per flight. The first start attempt should be made after at least _2__ hours at cruise altitude above _FL290____, to assure cold soak conditions, but before top of descent.
Reference: OM Vol I 2e.8.11

If the first attempt was unsuccessful, a second attempt should be made later in cruise or during initial descent. A third and final attempt may be made at a lower altitude, but not below FL290.
In-flight starts made for this program should only be done on domestic or US mainland bound flights. If a start request is received on a trip leaving the US mainland, or with less than 2 hours of cruise time above FL290, it should be ignored.

60. The passenger oxygen mask doors open automatically if the cabin altitude exceeds what altitude?
Reference: OM Vol II 16.1.3

Each container has an electrically activated door that opens automatically when the cabin altitude exceeds ***14,000'***.

61. If severe turbulence is encountered, maintain turbulence airspeed. Turbulence airspeed is _____.
Reference: OM Vol I 3.1.3 *Note* - A330-200 0.80M (per chart on PH page 3-3)

- ***240 knots below 20,000 feet***
- ***260 knots/0.78M at or above 20,000 feet***

Descent.

62. (True or False) The FAA recommends that operators of turbojet airplanes have procedures for flight crews to assess landing performance based on conditions actually existing at time of arrival, as distinct from conditions presumed at time of dispatch.
Reference: PM 8.4.2

Those conditions include weather, runway conditions, the airplane's weight, and braking systems to be used. Once the actual landing distance is determined an additional safety margin of at least 15% should be added to that distance.

63. When a flight reports leaving an altitude, the PF maintains a descent rate consistent with ATC requirements and fuel conservation procedures. Below 2500 feet on the radio altimeter, do not descend at a rate greater than _2000_ ft./min.
Reference: OM Vol I 2e.10.3 and O Vol I 2f.1.1

64. When selecting an altitude in the FCU that is below 10,000 feet, the ALT increment selector should be set to _100_.
Reference: OM Vol I 2.8.4

When selecting a new altitude in the FCU that is at or above 10,000 feet, the ALT increment selector knob may be set to 100 or 1000 at the pilot's discretion. When selecting an altitude in the FCU that is below 10,000 feet, the ALT increment selector should be set to 100.

65. The PM's Descending Through 18,000 Feet Flow is _SEAT BELTS - ON_, _ECAM - Checked_ and _MCDU - Set_.
Reference: OM Vol I 2e.15.2

- ECAM check should include memos, status, and cabin rate of descent to ensure proper aircraft pressurization.
- Ensure all applicable MCDU pages (i.e., F-PLN RAD NAV, PROG, PERF APPR, etc.) are set and reviewed for arrival. Use the default settings on the PERF GO AROUND page.

66. The __dispatcher__ should be notified as soon as possible of a decision to divert to any airport other than the intended destination.
Reference: FM Part I 9.2.6

The dispatcher should be notified as soon as possible of a decision to divert to any airport other than the intended destination. If time and circumstances permit, the captain should make a voice call to Dispatch. If unable, an ACARS diversion message should be sent. In addition, notify the station of intended landing ASAP of your ETA, number of passengers on board, and any services requested.

A flight may not land at an airport that is not the destination or a designated alternate on the original dispatch release unless either:

1. An amended dispatch release is obtained from the dispatcher for a new destination or alternate that is authorized for that type aircraft or
2. The captain exercises his/her emergency authority.

67. The maximum domestic holding airspeed 6000ft. and below is ___200 KIAS___.
Reference: OM Vol I 2i.1.4

Maximum Holding Airspeeds	
Altitude	***Airspeed***
Minimum Holding Altitude through 6000 ft.	200 KIAS
Above 6,000 ft. through 14,000 ft.	230 KIAS
	210 KIAS[1]
Above 14,000 ft.	265 KIAS
[1] Where published	

Approach.

68. The Predictive Windshear System (PWS) will generate an ADVISORY, CAUTION or WARNING alert depending on the __location__ and not the relative strength of the windshear event.
Reference: OM Vol I 2i.3.3

69. The aircraft is certified for an engine-out CAT III Single approach (fail passive) and autoland provided engine-out procedures are completed prior to _1,000_ feet AFL.
Reference: OM Vol I 1.10.2

70. Though normal landings may be made with CONF 3 or CONF FULL, significant fuel savings can be realized through use of CONFIG 3 landing.
Reference: OM Vol I 2f.2.7

Though normal landings may be made with CONF 3 or CONF FULL, significant fuel savings can be realized through use of CONF 3 landing, if the runway length, and field conditions permit. When planning a CONF 3 landing, select CONF 3 in the MCDU PERF APPR page.

71. On CAT lll approaches, the "SINGLE" annunciation indicates the autoland system is operating in a "Fail Passive" mode. "Fail Passive" will allow successful completion of an autoland, but visual verification of the runway environment at or prior to the DH is required.
Reference: OM Vol I 2f.3.9

CAT III approaches are based on either an Alert Height (AH) or DH depending on aircraft approach capabilities when the approach was commenced. This is displayed on the FMA as "SINGLE" or "DUAL."

- The "SINGLE" annunciation indicates the autoland system is operating in a "Fail Passive" mode. "Fail Passive" will allow successful completion of an autoland, but visual verification of the runway environment at or prior to the DH is required. Use a 50' entry in the DH field on the PERF page.
- The "DUAL" annunciation indicates the autoland system is operating in a "Fail Operational" mode. "Fail Operational" allows successful completion of an autoland even if an internal or external failure occurs at or below the AH. Use a 200' entry in the DH field on the PERF page.

72. The AUTO LAND lights flash when excessive deviation occurs in LOC or GLIDE, both autopilots disengage, both localizer transmitters or receivers fail, both G/S transmitters or receivers fail or the difference between RA indications is greater than 15 feet. The warning flashes in LAND mode below 200 ft. RA .
Reference: OM Vol II 5.1.5

Autoland Warning Light. The following situations, when occurring below 200' RA with the aircraft in LAND mode, trigger the flashing AUTOLAND red warning and a triple click aural warning:

- both APs OFF below 200' RA
- excessive deviation in LOC (1/4 dot - above 15' RA) or GLIDE (1 dot - above 100' RA) In addition LOC and GLIDE scales flash on the PFD
- loss of LOC signal (above 15') or loss of GLIDE signal (above 100')
- The FD bars flash on the PFD. The LAND mode remains engaged
- the difference between both radio altimeter indications is greater than 15'

73. The minimum height for the use of the Autopilot during a Non-ILS Approach is DA , DDA , or MDA .
Reference: OM Vol I 1.10.1

Minimum Height for Use of the Autopilot	
After Takeoff in SRS mode	**100 feet AGL** (an internal FMGC logic prevents the autopilot from engaging in the 5 seconds after liftoff)
Enroute (all other phases of flight)	500 feet AGL
Non-ILS Approach	DA, DDA, or MDA
ILS Approach (non-autoland with CAT 2, CAT 3 SINGLE, CAT 3 DUAL annunciated on the FMA)	80 feet AGL
ILS Approach (non-autoland with CAT 1 annunciated on the FMA)	160 feet AGL
After a Manual Go Around in SRS mode	100 feet AGL

74. Maximum gear extension speed (VLO) is 250 KIAS/.55M, Maximum gear extended speed (VLE) is 250 KIAS/.55M, and Maximum gear retraction speed (VLO) is 250 KIAS/.55M.
Reference: OM Vol I 1.4.1

Maximum gear gravity extension speed (VLO, VLE) 200 KIAS

75. During a CAVS approach, the visual approach may continue without OTW visual contact with the TTF provided that traffic remains coupled on the CDTI and the actual distance to TTF remains at least 2.5 NM.
Reference: OM Vol I 2f.2.10

76. A go-around is mandatory during a CAT II/III approach if the FMA does not display a __LAND Green__ below 350 feet RA, the AUTOLAND warning light illuminates during the approach, or the FMA does not display __FLARE__ at approximately 40 feet.
Reference: OM Vol I 2f.6.2

77. In flight, the pilot monitoring (PM) will normally move the landing gear and flap controls upon command of the pilot flying (PF). Prior to moving the landing gear or flap handle, the PM will check the __airspeed__ to ensure that it is in the normal operating range for the aircraft configuration.
Reference: OM Vol I 2.5.3

After checking the airspeed, the PM will
1. repeat the command,
2. select the landing gear or flaps to the commanded position, and
3. ensure the landing gear or flaps move to the commanded position.

Exception. Some rare situations may require the PF to move the gear/flap controls. In these instances, with the captain's concurrence, the PF may select a gear or flap position after checking the airspeed and verbalizing the desired position.

Note - Following landing gear extension the PM will reference the triple indicator to ensure no redisual brake pressure.

78. When flying a VOR approach, the underlying raw data must be monitored during the approach. Once established inbound on the approach, a missed approach must be executed if bearing deviation differs by more than __5º__ from the inbound approach course (except for station passage).
Reference: OM Vol I 2f.9.8

PM Callouts - VOR:

•"VOR": raw data bearing error reaches 2 1/2 degrees on the ND, except as required for station passage
•"PATH": vertical deviation reaches 1/2 dot (+50 feet) after FAF/GP Intcpt

Missed Approach - VOR:

•any failure or degradation of equipment required to complete the approach
•except as required for station passage, bearing deviation indicates more than +/- 5 ° difference from the inbound course
•vertical deviation 3/4 dot (±75 feet) after FAF/GP Intcpt

79. When conducting RNAV visual or FMS/CVFP visual approaches, enter MDA/BARO altitude of __300 Feet AFL__ on the PERF APPR page.
Reference: OM Vol I 2f.2.8

Go Around & Landing.

80. Either pilot may make a go around callout. If the go around callout is made, the PF must __execute a go-around__.
Reference: OM Vol I 2g.1.1

81. Aircraft must touchdown in the first third of the available landing distance, but in no case more than __3,000__ feet down the available landing distance. If this is not accomplished, a go-around must be executed.
Reference: OM Vol I 2g.12.4

82. During a go-around, ensure NAV is engaged. Then, if the desired missed approach path cannot be flown in NAV or ATC assigns a heading, utilize HDG. Maintain current heading until reaching __400__ feet AFL.
Reference: OM Vol I 2g.2.5

To initiate the go-around, advance the thrust levers to TOGA and engage NAV. Then, if the desired missed approach path cannot be flown in NAV (e.g. visual approach, dual FMGEC failure, etc) or ATC assigns a heading, utilize HDG. Maintain current heading until reaching 400 feet AFL. If an automatic approach has been flown, the autopilot and autothrust should remain engaged. If the approach has been flown manually, rotate smoothly and follow FD commands. Retract flaps to the Go-around Flap Setting.

83. Normally, during a go around above 1000 ft AFL, the best course of action is to initially move the thrust levers to the TOGA detent and then return them to the CL detent when TOGA thrust is not required. This would be accomplished only after verifying that __MAN TOGA - SRS__ was annunciated on the FMA.
Reference: OM Vol I 2g.2.3

Although the go around dialog box shows the CL thrust option after gear retraction, you may elect to select the thrust levers to the CL detent any time after verifying that MAN TOGA-SRS is annunciated on the FMA. If CL is selected before the thrust has stabilized at TOGA, the appropriate PM callout is "Climb Set."

Caution - If in a single engine descent, utilize the Engine-Out Go-Around procedure regardless of RA.

84. Sufficient visual clues must exist to continue the approach below applicable minimums. If visual clues are subsequently lost due to shallow fog, snow flurries or heavy precipitation, the pilot shall immediately initiate a __go-around__ and fly the __published missed approach procedure__.
Reference: OM Vol I 2g.2.4

85. (__True__ or False) On slippery runways, the predetermined deceleration may not be reached due to antiskid operation. In this case, the green DECEL light will not illuminate. This does not indicate the autobrake is not working.
Reference: OM Vol II 14.2.2

The DECEL light illuminates green only if the autobrake function is active and when actual aircraft deceleration corresponds to predetermined rate. (In LO or MED: 80% of the selected rate; in MAX: 8.7 ft/s). This occurs approximately 8 (5) seconds after activation for LO (MED) using brakes alone. Predetermined rates can also be achieved by reversers alone or a combination of both reversers and brakes.

86. Landing with CONF 3 rather than CONF FULL will increase the normal landing roll by approximately __500__ feet, depending upon landing weight.
Reference: OM Vol I 2g.12.9

87. After landing, maintain up to maximum reverse thrust until the airspeed approaches __80__ knots. Then start reducing the reverse thrust so the reverse levers are moving down at a rate commensurate with the deceleration rate of the airplane. Reverse idle should be reached by __60__knots.
Reference: OM Vol I 2g.12.7

Idle reverse thrust may be used until the aircraft is at a full stop or until the turn off is made, provided taxi speed is obtained.

88. Acceptable autoland performance cannot be assured at weights above the certified __Maximum Landing Weight__.
Reference: OM Vol I 2g.12.11

89. Maximum crosswind for Automatic Approach, Landing, and Roll Out (including gusts) for visibility 4000 or 3/4 or greater is __20__ knots.
Reference: OM Vol I 1.10.2

Maximum crosswind for landing Vis < 4000 or 3/4 is 15 knots.

90. The PM will monitor the pitch attitude on the PFD and call "Pitch" if pitch attitude exceeds __7.5__ degrees.
Reference: OM Vol I 2g.13 / OM Vol I 2g.15.2

"Bank," if bank reaches 7 degrees

A tail strike occurs if the pitch attitude exceeds 10° (landing gear strut compressed), 14° (landing gear strut extended).

91. (__True__ or False) If, during a go around, both thrust levers are set to TOGA detent after touchdown, the autopilots will disengage.
Reference: OM Vol I 2f.6.2

If, during a go around, both thrust levers are set to TOGA detent *after* touchdown, the autopilots will disengage. (prevents takeoff with autopilot engaged following a touch and go landing).

Parking & Post Flight.

92. What is the trigger for the Captain's After Landing Flow?
Reference: OM Vol I 2h.2.2 *and* 2h.1.1

Trigger: After the aircraft has cleared the active runway

- External Lights - As required
- Call for "Flaps - Up" (or as operationally required)

93. Single engine taxi is the standard mode of taxi. Run engines at IDLE for approximately _3_ minutes to allow for engine thermal stabilization before shutting down an engine. Time may be reduced to a minimum of one minute for operational considerations, such as short taxi to the gate.
Reference: OM Vol I 2h.4.3/2h.6.3

Engine #1 is used for single engine taxi. Run the engines at IDLE for approximately three (3) minutes to allow for engine thermal stabilization before shutting down engine #2. Prior to engine shutdown, start the APU and select the APU BLEED ON for air-conditioning.

Do not shut down an engine while making brake or steering inputs. Prior to selecting ENG 2 MASTER - OFF, the first officer will verbally communicate with the captain to ensure no brake or steering inputs are being made.

Run the engines at IDLE for approximately three (3) minutes to allow for engine thermal stabilization before shutting down an engine. Time may be reduced to a minimum of one minute if the aircraft has arrived at the gate.

94. As part of the First Officer's After Landing Flow, if the OAT is greater than _38°C/100°F_ , place the FLAPS Lever in the 1 detent during taxi and at gate to avoid "AIR L(R) WING LEAK" caution.
Reference: OM Vol I 2h.3.3

Cold Weather. If the approach was made in icing conditions or if the runway was contaminated with slush or snow, do not retract the flaps or slats. The flap/slat areas must be inspected at the gate for debris by either:

- The flight crew,
- Maintenance, or
- Qualified deicing personnel at a non-maintenance station

After it has been determined that the flaps/slats are clear of debris and the area is clear for flap retraction, retract the flaps/slats, or arrange for maintenance or the on-coming crew to retract the flaps/slats.

Hot Weather. If the OAT is greater than 38°C/100°F, place the FLAPS Lever in the 1 detent during taxi and at gate to avoid "AIR L(R) WING LEAK" caution, and leave the flaps extended for parking.

95. During taxi, do not shut down an engine while _ making brake or steering inputs _.
Reference: OM Vol I 2h.4.3

Do not shut down an engine ***while making brake or steering inputs***. Prior to selecting ENG 2 MASTER - OFF, the first officer will verbally communicate with the captain to ensure no brake or steering inputs are being made.

96. The captain will taxi the aircraft to the gate. If waiting for guideman, the aircraft may be turned on to the lead-in line, but should not approach closer than approximately ___one aircraft length___ from the parking position.
Reference: FM Part I 10.8.4

97. Regarding ramp markings, the lead-in line for all aircraft is yellow. At gates with dual lead-in lines, narrowbody aircraft use the _solid_ line, and widebody aircraft use the _broken_ line.
Reference: FM Part I 10.8.5 (reference should be 10.8.4)

98. Do not turn off the batteries to OFF until the _APU flap_ is fully closed (about two (2) minutes after APU AVAIL light extinguishes).
Reference: OM Vol I 2h.10.1

Do not select the batteries to OFF less than 2 minutes after the APU AVAIL light extinguishes to allow for proper APU oil scavenging and the APU flap to close.

99. The _ passenger door disarming lever__ is a confirm item on the ground.
Reference: OM Vol I 9.1.3

Confirm items in flight include thrust levers, engine masters, engine fire pbs, cargo smoke DISCH pbs, IR pbs/selectors, and/or IDGs. The ***passenger door disarming lever*** is a confirm item on the ground.

100. Routine ECAM messages may occur as a result of normal procedures or operations and are not considered non-normal by the manufacturer. A routine ECAM Message listed in the Pilot Handbook is DOORS CABIN/CARGO.
Reference: OM Vol I 2.3.7

Miscellaneous

Climb	Managed Speed	Selected Speed
Normal		
< 10,000 ft. MSL	ECON CLB speed based on CI	Accelerate to 250 KIAS
≥ 10,000 ft. MSL		Accelerate to flight plan climb speed/M
Other Situations		
Maximum Angle		Use OP CLB and Green Dot
Maximum Rate		Use OP CLB and • 250 KIAS/.78M

Turbulence Penetration Speeds		
	Below 20,000 feet	***At or above 20,000 feet***
-300	240 knots	260 knots / 0.78M
-200	240 knots	260 knots / 0.8M (per chart on PH page 3-3)

Maximum Holding Airspeeds	
Altitude	***Airspeed***
Minimum Holding Altitude through 6000 ft.	200 KIAS
Above 6,000 ft. through 14,000 ft.	230 KIAS
	210 KIAS[1]
Above 14,000 ft.	265 KIAS
[1] Where published	

ADDITIONAL MEMORY LIMITATIONS (In Bold)

OPERATION LIMITS
Maximum wind for takeoff and landing: ***50 knots***
V 90 degree crosswind component for takeoff and landing: **29/G32 knots**
Maximum 90 degree crosswind component (including gusts) for Autoland: **20 knots**
Maximum 90 degree crosswind component (including gusts) for CAT II/III approaches: **15 knots**
Maximum tailwind component for takeoff and landing: **10 knots**
Maximum operating altitude: **41,000 feet**

SPEED LIMITS
Maximum operating airspeed (V_{MO}): **330 KIAS**
Maximum operating mach number (M_{MO}): **0.86M**
Maximum taxi speed: 30 knots
Maximum taxi speed for 90 degree turn: 10 knots
Maximum gear extension speed (V_{LO}): 250 KIAS/.55M
Maximum gear retraction speed (V_{LO}): 250 KIAS/.55M
Maximum gear extended speed (V_{LE}): 250 KIAS/.55M

Maximum Flaps/Slats Extended Speeds (V_{FE})					
FLAPS	1	1+F	2	3	4
	240 KIAS	215 KIAS	196 KIAS	186 KIAS	180 KIAS

ICE & RAIN PROTECTION
Engine Anti-ice ON when OAT (Ground) / TAT (Flight): **10º C or below** and

- visible moisture in any form is present such as clouds, fog with visibility of one mile or less, rain, snow, sleet and ice cystals, or
- when operating on ramps, taxiways, or runways where surface snow, ice, standing water, or slush may be ingested by engines, freeze on engines, nacelles, or engine sensor probes.

(except during climb and cruise when the temperature is **below –40º C SAT**)

Engine anti-ice must be ON prior to and during descent in icing conditions
(including temperatures **below –40º C SAT**)

FUEL
Operational maximum fuel imbalance will be indicated by an ECAM advisory condition.

HYDRAULICS, BRAKES, & LANDING GEAR
Maximum landing gear extension altitude: **21,000 feet**
Maximum Brake Temperature for Takeoff: 300°C

FLIGHT CONTROLS
Maximum flap and/or slat extension altitude: **20,000 feet**

AUTO FLIGHT SYSTEM
Autopilot Engaged – Minimum Height: **100 feet AGL** After Takeoff in SRS mode.

Maximum Winds for Automatic Approach, Landing, and Rollout	
Headwind	**35 knots**
Tailwind	**10 knots**
Crosswind other than CAT II/III	**20 knots**

RSVM
The maximum allowable in-flight difference between captain and first officer PFD altitude displays for RVSM operations is **200 feet**.

POWERPLANT
Minimum oil quantity for dispatch indicated on
ECAM is:
• A330-200: 16 quarts (U)
• A330-300: 18 quarts (U)