limitations CRJ 200, 700, and 900	ANSWERS
Minimum Flight Crew	1 Captain and 1 First Officer
Maximum 90° crosswind for takeoff and landing	27 Knots
Maximum 90° crosswind for landing from a CAT II approach	15 Knots
Maximum headwind for landing from a CAT II approach	16 Knots
Maximum direct tailwind for takeoff or landing	10 Knots
Maximum runway slope for takeoff or landing	± 2°
Maximum operating altitude	36,000' CRJ-200 41,000' CRJ-700/900
Minimum runway width approved for takeoff and landing	100'
Maximum PA for takeoff or landing	8000'
Maximum ambient temperature for takeoff or landing	ISA +35
minimum ambient temperature for takeoff	-40 C
Maneuvering Limit Load Factors	-1.0 to +2.5 G Flaps Retracted 0.0 to +2.0 G Flaps Extended
Except for emergencies - max peak wind value for takeoff and landings	50 Knots
Maximum positive differential pressure	8.6 ±1 psi (87)
Maximum negative differential pressure	-0.5 psi
Maximum pressure differential during ground maneuvering	0.1 psi
Maximum differential pressure during initial landing (at touchdown)	1.0 psi
Maximum altitude for single pac operations	25,000' CRJ-200 31,000' CRJ-700/900
Low pressure air must be _____ prior to the main cabin door being closed and secured	off

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The airplane must be completely _____ prior to opening any of the airplane doors	depressurized
Maximum altitude for use of the EMER DEPRESS <-200 only>	15,000'
The bleed air 10th-stage valves must be closed for _____ and ____ if the anti-ice systems have been selected ___ <-200 only>	takeoff, landing, on
The cabin pressurization must not be operated to a cabin altitude of _____ when the system is in manual mode	-1,500 ft. below sea level
Turbulence penetration speed	280 KIAS/.75M, whichever is lower
Maximum gear extension speed	220 KIAS
Maximum gear extended speed	220 KIAS
Maximum gear retraction speed	200 KIAS
Maximum airspeed for windshield wiper operation	220 KIAS
Maximum airspeed for windshield wiper operations failed in the non-parked position	220 KIAS <-200> 250 KIAS <-701> <-900>
Maximum cruise Mach in RVSM airspace	0.82 Mach
Tire limit ground speed	182 knots <-200> <-701> 195 knots <-900>
Flap extended speeds <-200>	Flaps 8 - 230 KIAS Flaps 20 - 220 KIAS Flaps 30 - 185 KIAS Flaps 45 - 170 KIAS
Flap extended speeds <-701> <-900>	Flaps 1 - 230 KIAS Flaps 8 - 230 KIAS Flaps 20 - 220 KIAS Flaps 30 - 185 KIAS Flaps 45 - 170 KIAS
Flap operating speeds <-200>	Flaps 0-8 200 KIAS Flaps 8-20 200 KIAS Flaps 20-30 185 KIAS Flaps 30-45 170 KIAS
Flap operating speeds <-701> <-900>	Flaps 1 - 230 KIAS Flaps 8 - 230 KIAS Flaps 20 - 220 KIAS Flaps 30 - 185 KIAS Flaps 45 - 170 KIAS

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Minimum temperature for cold-soaked APU starting on ground	-40 C
APU start cycle limitation, on battery <-200>	1st start 30 seconds ON 2 minutes OFF 2nd start 30 seconds ON 20 minutes OFF 3rd start 30 seconds ON 2 minutes OFF 4th start 30 seconds ON 40 minutes OFF
APU start cycle limitation, using DC ground <-200>	1st start 15 seconds ON 2 minutes OFF 2nd start 15 seconds ON 20 minutes OFF 3rd start 15 seconds ON 2 minutes OFF 4th start 15 seconds ON 40 minutes OFF
APU start cycle limitations <-900>	Not more than three (3) starts/start attempts in one (1) hour with two (2) minute delay between attempts
Maximum APU starting altitude	30,000' <-200> 36,000' <-701> <-900>
Maximum APU operating altitude	37,000' <-200> 41,000' <-701> <-900>
APU bleed air extraction is not permitted above:	15,000' <-200> 25,000' <-701> <-900>
Maximum altitude for engine start in-flight using the APU as the bleed source	13,000' <-200> 21,000' <-701> <-900>
APU door open limitations (when the APU door is open or position unknown)	300 KIAS <-200> 220 KIAS <-701> <-900> or the APU must remain in operation
During all starts, do not exceed ____% N1 for ___ minutes after start, or until operating indications are _____ , whichever is _____	75% N1, 2 minutes, in the normal range, longer
Operate engines at or near _____ for _____ prior to shutdown. (taxi time at stabilized N2 of _____% or below may be credited towards the cool down)	Idle, 2 min (80%)
What is the max N2 split at ground idle power	2%
If N2 is ____ or less with OAT of _____, do not accelerate above _____	57% -20 or warmer Idle
Normal takeoff power and maximum power (2 engines) is limited to	5 min
APR power (1 engine) is limited to	10 min
ITT must be below _____ before attempting to ground start engine, and below _____ before attempting to airstart engine	120°C ground 90°C air
Maximum oil pressure is _____ when oil temp transient is <60°c	156 PSI
Oil pressures (above idle) between __ and __ PSI require oil temperature monitoring	25 and 45 PSI

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what is the max displayed oil pressure? What is it displayed as if it exceeds this value?	182 PSI, amber dashes
When is an aircraft considered "cold soaked"	ambient temperatures of -30°C (-22°F) or below for more than 8 hours
When an aircraft is cold soaked, what must be done before an engine start is initiated	the engine must be motored for 60 seconds and fan rotation must be verified
Minimum oil temperature for Engine starting	-40
Minimum Oil pressure at steady state idle? at takeoff power?	25 Psi minimum - Steady state idle 45 Psi minimum - takeoff power
When must continuous engine ignition must be used?	Takeoff and landing on contaminated runways Takeoff with high crosswind components (15 knots or greater) Flight through moderate or heavier intensity rain Flight through moderate or heavier intensity turbulence Flight in vicinity of thunderstorms
Starter Cranking limits <-200>	1st start - 1 minute ON, 10 sec OFF 2nd Start - 1 minute ON, 10 sec OFF 3rd and subsequent - 1 min ON, 5 minutes OFF
Starter Cranking limits <-701> <-900>	1st start - 90 seconds ON, 10 sec OFF 2nd Start - 90 seconds ON, 10 sec OFF 3rd and subsequent - 90 seconds ON, 5 minutes OFF
Starter Cranking limits <-701> <-900> in flight	1st start - 2 minutes on, 10 sec OFF 2nd and subsequent - 1 minute ON, 5 minutes OFF
Dry-motoring cycle limits	1st start - 90 seconds ON, 5 minutes OFF 2nd and subsequent - 30 seconds ON, 5 minutes OFF
During landing, maximum reverser thrust is prohibited below ___, and reverse idle should be achieved by _____	75 KIAS 60 KIAS
<-200> can acft be dispacthed with one reverser deferred on rwy contaminated with ice?	No, its prohibited
Engine operating limits due to wind direction	Wind within 30° of the nose - no windspeed limit - OR - >30 ° but <5 knots = no limitations, TOGA can be applied before brakes released. Wind >30° off the nose, between 5-30 knots = Apply maximum of 75% N1 before brake release, then TOGA thrust. Wind >30° off the nose and >30 knots = apply maximum of idle/taxi thrust before brake release, then TOGA thrust
What are the Reduced Thrust (FLEX) takeoff limitations?	Anti-skid must be operational PROHIBITED on contaminated runways PROHIBITED if the airplane has been de-iced PROHIBITED if wing and/or cowl anti-ice bleeds are in use PROHIBITED if warnings of windshear or downdrafts are forecast PROHIBITED with an engine that cannot achieve full-rated thrust PROHIBITED when a special DP specifies full thrust takeoff
Slats/Flaps max altitude <-200> conditions to extend beyond the 0 degree position	15,000' max altitude <-200> upon arrival at airport, approach shall not commence, nor shall flaps be extended unless - weather is above landing minimums for the approach to be flown - OR - an abnormal or emergency situation which requires landing at the nearest suitable airport

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Minimum altitude for Flight Spoiler operation	1,000' AGL
Minimum airspeed for Flight Spoiler operation	Vref +17 KIAS
Maximum permissible fuel imbalance between Left and Right wing tanks	take off - 800 lbs <-200> 300 lbs <-701> <-900> all other phases 800 lbs <all acft>
Takeoff with more than _____ lbs in the center tank is prohibited unless each wing tank is above _____ lbs	500 lbs, 4,400 lbs
Minimum fuel quantity for go-around (per wing)	450 lbs <-200> 600 lbs <-701> <-900>
Minimum engine fuel temperature for takeoff	5° C (41° F)
Bulk fuel temperatures prior to flight must be verified to be _____	above -29° C (-21°F)
What are the anti-ice requirements for Taxi with OAT 10°C or below with contamination or visible moisture	Cowl anti-ice
What are the anti-ice requirements for Takeoff with OAT 10°C or below with contamination or visible moisture	Cowl anti-ice
What are the anti-ice requirements for Takeoff with OAT 5°C or below with contamination or visible moisture	Cowl and wing anti-ice
What are the anti-ice requirements in flight with TAT between 10°C and SAT -39°C and visible moisture	airspeed ≥ 230 = cowl anti-ice airspeed < 230 wing and cowl anti-ice
What are the anti-ice requirements when ICE annunciated in fligt	Wing and Cowl anti-ice
What is the definition of Ground Contamination	Runways, Ramps, or Taxiways with surface snow, ice, slush, or standing water
What is the definition of Visible Moisture	Visible moisture or precip in any form (such as fog with visibility of 1 mile or less, mist, rain, snow, sleet and ice crystals or clouds inflight if visible moisture is present below 400' AGL with OAT 10° C or below - activate Cowl anti-ice for takeoff. If OAT is 5° C or below - activate both wing and cowl anti-ice for takeoff
When do you turn on wing anti ice if Type IV anti-ice fluids have been applied?	must only be selected and confirmed on just prior to thrust increase for takeoff
<-200> When must wing anti-ice be selected on if temperatures are 5°C or below?	the final 2 minutes prior to takeoff unless type IV anti-icing fluid has been applied
<-200> what must be closed for takeoff and landing if the Cowl and/or Wing anti-ice systems are in use?	10th stage engine bleeds
Can you hold in icing conditions with slats and/or flaps extended?	NO

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<-701> <-900> what anti-ice selections inflight are prohibited when the APU is manually selected as the bleed source	Wing and Cowl anti-ice
Takeoff is prohibited with frost, ice, snow, or slush adhering to any critical surface. What are considered critical surfaces?	Wings, horizontal stabilizer, vertical stabilizer, control surfaces, and engine inlets
Takeoff is prohibited with frost adhering to:	The upper surface of the fuselage and/or the underside of the wing (maximum 1/8 inch) that is caused by cold soaked fuel
What is prohibited when ramps or taxiways are contaminated with snow, slush, or ice, or when other freezing/frozen precip is present	single engine taxi
what should be avoided during taxi operations on wet and contaminated surfaces to prevent wing contamination	operating the thrust reversers
What is checked during the Tactile check?	wing leading edge, wing forward upper surface and wing rear upper surface are checked to determine that the wing is free from frost, ice, snow or slush
When is the Tactile check performed?	When the OAT is 10°C or less The bulk fuel temp is 0°C or less The atmospheric conditions have been conducive to frost formation Ice and frost may continue to adhere to wing surfaces for some time even at outside air temperatures above 10°C
When must taxi lights be switched off?	Whenever the airplane is stationary in excess of 10 min
Minimum brake cooling time after landing or rejected take off is:	15 min and all BTMS indicators must be green and not increasing
Category II approaches are prohibited when the braking action is reported as:	less than "medium"
Live animals shall not be transported in which cargo compartment?	Forward
Operations with the autopilot engaged are prohibited at altitudes below _____ (except approached covered in next question)	600' AGL
Minimum height for auto pilot use during approaches: Visual approach? Non-precision approach? Precision approach? Precision approach with one engine inoperative?	400' AGL, 400' AGL, 80' AGL, 110' AGL
Which mode is not permitted during an approach	Speed mode (DES or IAS)
Which mode is not permitted during climb and approach phases of flight?	VNAV
What are the RVSM required equipment items	Autopilot with altitude hold Must be operational Altitude alerting system Must be operational Altitude reporting transponder (2) One (1) must be operational Air data computer (2) Two (2) must be operational
Maximum Taxi and Ramp weights	<200> 53,250 <CR7> 75,250 <900> 85,000

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Maximum Takeoff weights	<200> 53,000 <CR7> 75,000 <900> 84,500
Maximum Landing weight	<200> 47,000 <CR7> 67,000 <900> 75,100
Maximum Zero fuel weight	<200> 44,000 <CR7> 62,300 <900> 70,750
Flights must be within _____ minutes of a suitable airport, if cargo is carried	<200> 45 min, <CR7> <900> 60 min
What is considered an excessive rotation rate during takeoff	exceeding 3 degrees per second