

N372SE DA40 CHECKLIST "Diamond 372 Sierra Echo". Summary only. AFM + aircraft checklist govern.

1 PREFLIGHT (walkaround, from L wing)	
L main tire; brake line	CHK (PRESSURE); NO LEAKS / FLUID
Tail: all surfaces; visible cables	CHK; CHK
R wing fuel	CHK, MEASURE (DIPSTICK)
R main tire, brake line	CHK
Cowling: oil; front inlets	CHK (QTY); CLEAR
Oil, ext power covers	CLOSED, SCREWS HORIZ
Tow bar, chocks, tie-downs	REMOVE, STOW
Wing tie-down anchors L + R	UNSCREW, FLIGHT BAG
Fuel drains (tanks + under cowling)	DRAIN, CHK
L wing fuel	CHK, MEASURE
Pitot cover, stall warning cover	REMOVE, STOW
2 COCKPIT PREP (after pax brief)	
All lights	OFF
Position lights	ON
Standby attitude batt; PFD, MFD	OFF (UNARMED); SECURE
CBS	ALL IN
ESS bus, avionics master	OFF, OFF
Master BAT	ON (ENT ON MFD)
Key	OUT
Fuel pump, pitot heat	OFF, OFF
Alt static, alt air	OFF (CLOSED)
Flaps	UP
Cabin heat, defrost; parking brake	SET; SET
Throttle, prop, mixture	FREE, FULL TRAVEL
Throttle IDLE, prop HIGH, mixture LEAN	SET
Friction (right side)	ADJ
Fuel qty; selector	CHK; EMPTIER TANK
Trim	T/O
Rudder pedals	ADJ
Harnesses; rear door	FASTENED; LOCKED
ForeFlight FPL	SEND, ACCEPT ON G1000
ForeFlight track	RECORD (START)
Hobbs, fuel (local time)	WRITE DOWN
3 ENGINE START	
Canopy	CLOSED, LOCKED
Key	IN (NO TURN)
ACL (strokes)	ON
Call out	"CLEAR PROP"
Throttle (prime)	1.2 IN FWD OF IDLE
Fuel pump	ON
Mixture (prime)	RICH 3 TO 5 S (HOT 1 TO 3)
Mixture	LEAN
Throttle (hot: stay 1.2 IN)	0.4 IN FWD OF IDLE
Brakes	HOLD
Starter	ENGAGE, 10 S MAX
When running: mixture	RICH FAST
Throttle	1000 RPM
Master ALT; starter ann	ON; OFF
Amps, volts	CHK
Oil P, fuel P (14 TO 35), fuel flow; fuel pump	CHK; OFF
Ground lean: mixture	TO ROUGH, ENRICH
Starter: cool 20 s; 6 tries, then 30 min.	
4 AFTER START	
Avionics master; headsets	ON; ON
Engine page	OPEN
Oil pressure	GREEN IN 15 S, ELSE OFF
GFC PFT; MET test (DISC)	PASS; NO TRIM
COM1, COM2	SET
Altimeter; ALT preselect	SET; SET
HDG bug	RWY HDG
GND, TWR freqs	SET (ACT / STBY)
ATIS; CD (B, C or per ATIS); GND	CALL
CRAFT: Clearance, Route, Alt, Freq, Xpdr.	
5 TAXI	
MFD map: airport diagram	OPEN, ZOOM IN
Park brake; taxi light	OFF; ON
Brakes	TEST ON MOVING OFF
Taxi per ATC	HOLD SHORT / RUN UP
UTC =	CDT +5, CST +6 EDT +4, MDT +6, PDT +7

6 BEFORE DEPARTURE (RUN UP)				
Park brake; taxi light		SET; OFF		
Fuel selector; fuel P		FULLER TANK; 14 TO 35		
Fuel pump; pitot heat		ON; ON		
Engine page; engine instr		OPEN; GREEN		
CBS		IN		
Altimeter, ALT bug, HDG bug		SET, CHK		
Mixture		FULL RICH		
Throttle		2000 RPM		
Mags L, BOTH, R, BOTH		MAX DROP 175, DIFF 50		
Prop		CYCLE 3X (250 TO 500), HIGH		
Volts		CHK		
Throttle		IDLE 600 TO 800, THEN 1000 RPM		
Rear door, canopy; DOOR ann		LOCKED; OFF		
Trim; flaps; controls		T/O; T/O; FREE, CORRECT		
XPDR		CODE, ALT		
Departure briefing		ABORT, VR 59, VY 67, EFATO 74		
Full throttle: static RPM		2680 ±20, ELSE ABORT		
All lights		ON		
Departure freq		STBY		
7 AFTER TAKEOFF / CLIMB				
Flaps (safe ht, 76 KIAS)		UP		
Prop; throttle		2400; MAX PWR		
Mixture		RICH, 5000+: EGT CONST		
Fuel pump; ldg light (safe ht)		OFF; OFF (ON FOR LDG)		
AP min engage		PER SUPPL		
HDG; VS; AP		SET; 300 TO 600 FPM; ENGAGE		
Climb FLC (not VS); descent		FLC; VS		
On route: Direct To, ENT, ENT		NAV		
8 CRUISE				
Throttle MP; prop RPM		PER TABLE		
Mixture		LEAN		
Econ (75% max): lean to rough, enrich to smooth (peak EGT). Best power: enrich to approx 100 F below peak EGT. AFM: no EGT limit. CHT 500 max, 150 to 400 cont.				
PA 4000 ISA (GPH)	RPM	MP	ECO	PWR
55%	2200	21.2	7.2	8.5
55%	2400	20.1	7.5	8.7
65%	2200	23.5	8.2	9.5
65%	2400	22.3	8.5	9.8
75%	2400	24.5	9.5	11.0
Tanks (pump ON to switch)		HOURLY, MAX DIFF 8 GAL		
9 DESCENT / BEFORE LANDING				
ATIS, altimeter; brief		SET; DONE		
Mixture (slowly); prop		ENRICH; 1800 TO 2400		
Harnesses		FASTENED		
Fuel selector; fuel pump		FULLEST; ON		
Below 108: flaps; ldg light		T/O; ON		
Mixture, prop		RICH, HIGH		
Below 91: flaps; AP		LDG; OFF		
Approach (2646 / 2205 lb)		73 / 63 KIAS		
10 AFTER LANDING				
Throttle; fuel pump, pitot heat		IDLE; OFF, OFF		
Flaps; lights; XPDR		UP; AS RQD; ALT (US)		
11 ENGINE SHUTDOWN				
Park brake; engine instr		SET; CHK		
Avionics master, all elec equip		OFF		
Throttle		1000 RPM		
Ignition check		OFF, RPM DROPS, BOTH		
Mixture		LEAN (ENGINE STOPS)		
Ignition		OFF		
MFD engine indications		RED / YELLOW X		
Hobbs, fuel		WRITE DOWN		
Master ALT / BAT		OFF		
Key		OFF, REMOVED		
ELT check (BAT, avionics ON)		INACTIVE, OFF		
Park brake; airplane		RELEASE, CHOCKS; MOOR		
Wait for X: G1000 saves engine + flight data.				

N372SE QUICK REFERENCE Summary only. AFM and aircraft checklist govern. [V] = verify

SPEEDS KIAS (AFM 2, 4A)				
Mass lb	2646	2535	2205	1874
Vr	59	59	59	59
Vy, flaps T/O	67	66	60	54
Glide / cruise climb UP	76	73	68	60
EFATO, flaps T/O	74	72	66	59
Approach, flaps LDG	73	71	63	58
Vx	NOT IN AFM: USE 67 T/O [V]			
Vfe	T/O 108, LDG 91			
Va	111 (>284 lb) / 94			
Vno / Vne	129 / 178			
Door unlocked	MAX 140			
After T/O, safe ht	RPM 2400, PUMP OFF, LDG LT OFF			
MEMORY: ENG FAIL ON T/O (AFM 3.2.2)				
T/O CAN BE ABORTED				
Throttle; brakes	IDLE; AS RQD			
Time: fuel OFF, mix LEAN, ign OFF, Master OFF				
AFTER T/O, CANNOT ABORT				
Airspeed, flaps T/O	74			
Below safe height	LAND AHEAD, NO TURN BACK			
Turnback: only above own tested ht (min 1000 AGL), briefed, light wind. Else ahead, max 30° L/R. 73 KIAS.				
Time: fuel tank CHK, pump ON, ign BOTH, MAX PWR, RPM HI, mix RICH, alt air OPEN				
NO POWER: FORCED LANDING				
Fuel OFF, flaps LDG when field assured, harness tight, ign OFF, Master OFF, land slowest				
US AIRSPACE B / C / D / E / G				
CHART (SECTIONAL / TAC)				
B	SOLID BLUE; 70/20 = CEIL/FLOOR, 100s MSL			
C	SOLID MAGENTA; 40/12, 40/SFC; T = TO B FLOOR			
D	DASHED BLUE; [25] = CEIL 100s MSL			
D minus [-25]	UP TO, NOT INCL			
E sfc	DASHED MAGENTA			
E 700 AGL	MAGENTA SHADED VIGNETTE			
E 1200 AGL	BLUE SHADED VIGNETTE (G side)			
Mode C veil	SOLID MAGENTA 30 NM RING			
ENTRY				
B	CLNC: "CLEARED INTO CLASS BRAVO"			
C, D	2 WAY COMMS: ATC USES CALLSIGN			
"N372SE, stand by"	OK TO ENTER			
"Aircraft calling, stand by"	STAY OUT			
"Remain outside"	STAY OUT			
EQUIPMENT / PILOT				
B	2 WAY RADIO, MODE C + ADSB OUT; PPL			
B student, sport	ENDORSEMENT			
C	2 WAY RADIO, MODE C + ADSB OUT			
D	2 WAY RADIO			
Veil (to 10000), above C	MODE C + ADSB OUT			

VFR MINIMA / SPEED						
B	3 SM, CLEAR OF CLOUDS					
C, D, E <10k	3 SM, 500 BLW, 1000 ABV, 2000 HORIZ					
E 10k+	5 SM, 1000 BELOW / ABOVE, 1 SM HORIZ					
G day <1200	1 SM, CLEAR OF CLOUDS					
G day >1200	1 SM, 500 BLW, 1000 ABV, 2000 HORIZ					
Sfc area	CEILING 1000, GND VIS 3 SM					
250 KIAS	BELOW 10000 MSL					
200 KIAS	UNDER B SHELF; C/D 4 NM, 2500 AGL					
SPECIAL USE AIRSPACE (VFR)						
MOA	NO CLNC; CHECK HOT; FF; FAST JETS					
A-xxx Alert	NO CLNC; HEAVY TRAINING; SEE + AVOID					
R-xxx Restricted	HOT: PERMISSION ONLY (ATC)					
P-xxx Prohibited	NEVER ENTER					
W-xxx Warning	OFFSHORE, HAZARDS LIKE R					
MTR VR / IR	LOW LEVEL FAST JETS; GRAY LINES					
TFR	NEVER ENTER; VIP 30/10 NM; 121.5					
ADIZ / DC SFRA	FPL, SQUAWK, 2 WAY; SFRA COURSE					
FUEL (AFM 7.10.6)						
N372SE	LONG RANGE TANKS					
LR tank	25.5 US gal (96.5 L) / TANK, 0.5 UNUSABLE					
LR device	READS US GAL DIRECT, UP TO 25					
Wrong device	WRONG READING; NO CONVERSION					
G1000 gauge	MAX 16 / TANK; 16 TO 19 UNGAUGED					
Shows 16, not dipped	PLAN 16 GAL / TANK					
Max L / R diff	10 US gal (37.9 L); CARD 8					
STD TANK ONLY: BY PITCH = USABLE GAL / TANK						
GAL	1°	2°	3°	4°	5°	L
0	≤ 5	≤ 5	≤ 5	≤ 5	0	0
1	35	25	16	8	1	3.8
2	45	36	30	20	15	7.6
3	65	48	40	35	28	11.3
4	75	68	55	47	39	15.1
5	92	80	72	66	55	18.9
6	110	90	78	70	65	22.7
7	118	108	95	87	77	26.5
8	130	123	110	100	90	30.3
9	140	132	115	102	95	34.1
10	148	136	129	122	113	37.8
11	162	149	138	130	118	41.6
12	174	158	150	138	131	45.4
13	180	171	162	156	146	49.2
14	185	180	175	166	156	53.0
15	200	195	184	176	168	56.8
16	217	205	196	189	181	60.6
17	232	220	215	204	196	64.4
18	248	238	230	221	214	68.1

N372SE FUEL QTY CHECK *Reference only. AFM 7.10.6 governs.*

FUEL QTY INDICATOR II (AFM 7.10.6, p. 7-35/36)

1 Ground; wings; fuel filler **LEVEL; LEVEL; OPEN**

2 PITCH: device on tail boom **FLAT, ARROW FWD**
Top of tube, just in front of fin, full length on tube.

Lever angle (deg) **READ**

3 FUEL: device upright, recess **ON STALL STRIP BORE**
Connector on tank drain **READ SCALE 0 TO 280**

4 Pitch column + reading **USABLE US GAL / TANK**

CAUTION: STANDARD TANK DEVICE

LONG RANGE TANKS: ROUGH CROSS-CHECK ONLY
Overflows above about 18 gal.

READING BY PITCH = USABLE GAL / TANK

GAL	1°	2°	3°	4°	5°	L
0	≤ 5	≤ 5	≤ 5	≤ 5	0	0
1	35	25	16	8	1	3.8
2	45	36	30	20	15	7.6
3	65	48	40	35	28	11.3
4	75	68	55	47	39	15.1
5	92	80	72	66	55	18.9
6	110	90	78	70	65	22.7
7	118	108	95	87	77	26.5
8	130	123	110	100	90	30.3
9	140	132	115	102	95	34.1
10	148	136	129	122	113	37.8
11	162	149	138	130	118	41.6
12	174	158	150	138	131	45.4
13	180	171	162	156	146	49.2
14	185	180	175	166	156	53.0
15	200	195	184	176	168	56.8
16	217	205	196	189	181	60.6
17	232	220	215	204	196	64.4
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US AIRSPACE (CONT): TRSA, DEPARTURE	
TRSA (TERMINAL RADAR SERVICE AREA)	
Chart	SOLID GRAY LINE, GRAY CEIL/FLOOR
Layout	AROUND D CORE; OUTER USUALLY E
Participation	VOLUNTARY; APP RECOMMENDED
Not required	NO CLEARANCE, NO CONTACT
Service (participants)	SEQUENCING + SEPARATION
Core	CLASS D RULES (TWR CONTACT)
Wx mins	PER UNDERLYING AIRSPACE
Opt out	"NEGATIVE TRSA SERVICE"
Few remain	LCH, BPT ON KNEW TO KSGR ROUTE
DEPARTURE	
Field in B	CD BEFORE TAXI
CD gives	VFR CLEARANCE, SQUAWK, DEP FREQ
Field in C	CD or GND BEFORE TAXI
CD / GND gives	DIR + ALT, SQUAWK, DEP FREQ
Field in C, note	NO CLASS C CLEARANCE
Field in D	GND TAXI, TWR T/O CLEARANCE
Field in D, note	NO AIRSPACE CLEARANCE
Untowered (E, G, under shelf)	CTAF, GO
Then	B CLNC / C CONTACT BEFORE ENTERING
KNEW LAKEFRONT (home)	
D	SFC to 2500 MSL [25]; 0700 to 2100 local
D other times	CLASS E
B above	70/20 W of 15 NM MSY ring; 70/40 E
D active	B EXCLUDES 2500 AND BELOW
Twr closed	B FLOOR 2000 (70/20)
Westbound	REMAIN OUTSIDE B TILL DEP
Westbound, note	TWR CANNOT CLEAR INTO B
Freqs	ATIS 124.9, GND 121.7, TWR 118.95, CD 127.4
NOLA APP/DEP	133.15 N, 123.85 S
Inside MSY veil, SAID	XPDR ALT + ADSB ON, ALL SFC
G1000 NXi / GMA 1360	
Direct To	D> KEY, ident, ENT, ENT
Approach	PROC, SEL APPR, LOAD or ACTV (VTF)
Activate leg	FPL, PUSH FMS, leg, ACT LEG, ENT
Nearest	NRST, ENT tunes
121.5	HOLD COM SWAP 2 S
Checklist	MFD CHKLIST, EMERGENCY
BT audio	HOLD SMALL KNOB 2 S, PAIR PHONE
BT music	MUS1 BLUE
GFC 700 AP / FD	
<i>Green active, white armed. AP OFF T/O + LDG.</i>	
<i>Engage 70 to 165. Min 800 AGL, 200 AGL appr.</i>	
AP / FD	PIT + ROL / BARS ONLY
HDG / NAV	BUG / CDI (GPS, VOR, LOC)
APR	LOC + GS / GPS + GP
ALT / VS / FLC	HOLD / WHEEL / IAS, FULL PWR
VNV	VPATH, ALT SEL BELOW
GA / CWS	FD PITCH UP / HOLD, HAND FLY
Disconnect	AP DISC (stick), AP key
Trim runaway	HOLD AP DISC, FLY, AP/TRIM CB

N372SE RADIO / ATC (US) *Summary only. AIM, P/CG, Chart Supplement govern. [V] = verify*

CRAFT: CLEARANCE (AIM 4-4-3, 4-4-7)	
C Clearance limit	AIRPORT / FIX / "VFR"
R Route	HDG, DIRECT, VIA [FIXES]
A Altitude	MAINTAIN, AT OR BELOW, EXPECT
F Frequency	DEPARTURE FREQ
T Transponder	SQUAWK (4 DIGITS)
ATIS	
C	
R	
A	
F	
T	

READBACK	
Read back	ALT, HDG, RWY, FREQ, SQUAWK
Hold short	ALWAYS READ BACK
Callsign	IN EVERY READBACK
Order	SAME AS ISSUED
Not sure	"SAY AGAIN" / "VERIFY"
ATC: <i>N372SE, maintain at or below 2500,</i>	
<i>departure 133.15, squawk 4521</i>	
ME: At or below 2500, 133.15, 4521, N372SE	

DEPARTING: ATIS > CD > GND > TWR > DEP	
1 ATIS (ALWAYS FIRST)	NOTE LETTER
ATIS: " <i>VFR acft contact clearance 127.4</i> " or " <i>ground</i> ".	
2 Clearance Delivery	PER ATIS; ALWAYS B, C
ME: Houston Clearance, N372SE, DA40 slant G,	
VFR to [dest], request [alt], with [ATIS]	
3 Read back	CRAFT + CALLSIGN
4 Ground	READ BACK RWY + HOLD SHORT
5 Tower	READY, RWY; T/O CLEARANCE
6 Departure	CALLSIGN, ALT, CLIMBING TO
7 Flight following	CONTINUES; HANDOFFS
<i>B field: CD gives clearance. C field: CD or GND.</i>	
<i>Dep + App often same freq: "XYZ Departure" out,</i>	
<i>"XYZ Approach" in (New Orleans Dep, Houston App).</i>	

DEPARTING CLASS D / KNEW	
Class D	ATIS, [CD], GND, TWR, [DEP]
Class D, note	CD ONLY IF ATIS SAYS
KNEW CD 127.4	PER ATIS; ALSO TWR CLOSED
KNEW, ATIS no CD	GND 121.7: VFR + FF
ME: Lakefront Ground, N372SE, DA40, [FBO],	
VFR westbound to Sugar Land, 4500, request	
flight following, with [ATIS]	
ATC: <i>Squawk [code], dep 133.15, taxi via [twy]</i>	
Westbound	
REMAIN OUTSIDE B TILL CLEARED	
<i>Tower cannot clear you into B; NOLA Dep can.</i>	
<i>Spoken: November Three Seven Two Sierra Echo</i>	
<i>or Diamond Three Seven Two Sierra Echo (no N).</i>	

ARRIVING (AIM 3-2, 4-1-18, 4-3)	
CLASS B	
Call approach	20 TO 30 NM OUT
Entry needs	"CLEARED INTO CLASS BRAVO"
No clearance	REMAIN OUTSIDE B
Squawk, radar contact	NOT A B CLEARANCE
ME: Houston Approach, N372SE, DA40, 25 NM	
east of [fix], 4500, landing Sugar Land, [ATIS]	
ATC: <i>N372SE, squawk [code], cleared into Class</i>	
Bravo, maintain VFR at or below [alt]	
CLASS C	
Entry needs	2 WAY: ATC SAYS CALLSIGN
ME: Lafayette Approach, N372SE, DA40, 20 NM	
east, 3500, landing Lafayette, with [ATIS]	
ATC: <i>N372SE, squawk [code] = OK TO ENTER</i>	
"Aircraft calling, stand by"	
STAY OUT	
CLASS D	
Entry needs	2 WAY COMMS WITH TOWER
Call tower	BEFORE D BOUNDARY
ME: Sugar Land Tower, N372SE, DA40, 10 NM east,	
2000, landing Sugar Land, with [ATIS]	
ATC: <i>N372SE, enter left downwind rwy 35, report</i>	
Land	"CLEARED TO LAND" + RWY
After landing	GND WHEN TOLD, HOLD SHORT
VFR FLIGHT FOLLOWING (AIM 4-1-15, 18)	
On ground	AFTER ATIS: CD OR GND PER ATIS
Airborne call 1	WHO, YOU, "VFR REQUEST"
ME: Houston Approach, N372SE, VFR request	
ATC: <i>N372SE, Houston Approach, go ahead</i>	
Call 2	TYPE, POS, ALT, DEST, ROUTE
ME: DA40, 15 NM west of LCH, 4500, to Sugar Land	
via BPT, request flight following	
ATC: <i>N372SE, radar contact, [position]</i>	
Then	MONITOR FREQ; ADVISE ALT CHANGE
Handoff	READ BACK FREQ + CALLSIGN
Check in	CALLSIGN, ALTITUDE
Traffic	"IN SIGHT" / "LOOKING" / "NO JOY"
Cancel	BEFORE LEAVING FREQ
ME: N372SE, cancel flight following	
ATC: <i>Radar services terminated, squawk VFR,</i>	
<i>frequency change approved</i>	
Then	SQUAWK 1200, LEAVE FREQ
<i>Service is workload permitting; you see and avoid.</i>	

N372SE ROUTE / LOST COMMS *Summary only. AIM, P/CG, Chart Supplement govern. [V] = verify*

ROUTE / ALTITUDE REQUESTS	
ME:	Request direct LCH, then direct BPT
ME:	Request VFR via LCH, BPT, then Sugar Land
ME:	Request Bravo transition [route], to KSGR
ME:	Request 4500 / request climb to 6500
ME:	Request own navigation
ME:	Request deviation left / right for weather
ATC:	Proceed direct [fix], maintain VFR
ATC:	Resume own navigation
ATC:	VFR altitude your discretion
ATC:	Remain outside Class Bravo
ME:	Unable, N372SE (then say why / offer option)
VFR CRUISE (91.159, ABOVE 3000 AGL, MC)	
0 to 179 east	ODD + 500: 3500, 5500
180 to 359 west	EVEN + 500: 4500, 6500
WEATHER / ATIS (AIM 4-1-13, 4-1-9, 7-1)	
On ground	ATIS FIRST; SAYS CD OR GND
Arriving	ATIS 20 TO 30 NM OUT, THEN CALL
No ATIS	AWOS / ASOS FREQ, OR ASK ATC
En route	FSS 122.2, ATC, FIS-B, FOREFLIGHT
Say letter to	CD, GND; APP + TWR ON ARRIVAL
ME:	Sugar Land Tower, N372SE, 10 NM east, 2000, landing, with information Delta
AWOS / ASOS only	SAY YOU HAVE IT
ME:	[Field] Tower, N372SE, 10 south, landing, I have the automated weather
Old letter	ATC GIVES CURRENT; GET NEW ATIS
Voice wind	MAGNETIC; METAR TEXT TRUE
<i>No sky / vis on ATIS: ceiling 5000+, vis 5 SM+.</i>	
ROUTE KNEW TO KSGR (SUGAR LAND)	
<i>EXAMPLE route. Verify in ForeFlight before flight.</i>	
Route	KNEW RQR LFT LCH BPT KSGR
KSGR	CLASS D UNDER HOUSTON B [V]
Course	WEST: 4500 OR 6500
NAVAIDS (FAA NASR 01 OCT 2026)	
RQR Reserve	VOR/DME 110.8
LSU Fighting Tiger (Baton R)	VORTAC 116.5
BTR, note	ID NOW LSU (NORTH OF ROUTE)
LFT Lafayette	VORTAC 109.8
LCH Lake Charles	VORTAC 113.4
BPT Beaumont	DME ONLY 114.5, NO VOR
IAH Humble	VORTAC 116.6; SGR R214/26
HRV Harvey 114.1	U/S (NOTAM TO 28 OCT)
<i>BPT: GPS direct OK, no VOR needle. BPT direct KSGR passes 3 NM N of KHOU, inside B: get Bravo transition or route south of B.</i>	
FREQS EN ROUTE (CHART SUPPLEMENT)	
NOLA App/Dep	133.15 N, 123.85 S
Call it	DEPARTURE OUT, APPROACH IN
Lafayette App (C)	121.1 E (020-210), 128.7 W
Lake Charles App (TRSA)	119.8 E, 119.35 W
Houston App (KSGR)	123.8
App closed	ZHU 126.35 LFT, 124.7 LCH

LOST COMMS VFR (91.185, AIM 4-2-13)	
Squawk	7600
In VMC	STAY VFR, LAND ASAP PRACTICABLE
Check	VOL, SQUELCH, FREQ, PTT, JACKS
Then	COM2, GMA 1360, CBs, HEADSET
Try	LAST FREQ, 121.5, FSS 122.2, PHONE
Towered field	OUTSIDE D, FIND FLOW, JOIN
Then	WATCH TOWER FOR LIGHTS
LIGHT GUN (IN AIR / ON GROUND)	
Steady green	LAND / T/O
Flashing green	RETURN TO LAND / TAXI
Steady red	GIVE WAY, CIRCLE / STOP
Flashing red	NO LANDING / CLEAR RWY
Flashing white	N/A / RETURN TO START
Alternating red green	EXTREME CAUTION
Ack in air	DAY ROCK WINGS, NIGHT LIGHTS

SQUAWKS (AIM 4-1-20)	
1200	VFR ("SQUAWK VFR")
7500	HIJACK
7600	LOST COMMS
7700	EMERGENCY ("SQUAWK MAYDAY")
Code change	AVOID PASSING 75, 76, 77XX
7777	NEVER (MILITARY)
IDENT	ONLY WHEN ATC ASKS
121.5	GUARD / EMERGENCY

WORDS (PILOT/CONTROLLER GLOSSARY)	
Say again	REPEAT YOUR LAST
Unable	CANNOT COMPLY
Wilco	UNDERSTOOD AND WILL COMPLY
Roger	RECEIVED; NOT YES, NOT NO
Affirm / affirmative	YES
Negative	NO / NOT APPROVED
Stand by	WAIT; NO APPROVAL, NO DENIAL
Verify	CONFIRM
Immediately	ACT NOW (URGENT)
Have numbers	WIND/RWY/ALTIM; NOT ATIS
Radar contact	IDENTIFIED; NOT B CLNC
Mayday x3 / Pan pan x3	DISTRESS / URGENCY

CALLS AND POSITION REPORT	
Initial call	WHO, WHO YOU ARE, WHERE, WHAT
Altitude	EXACT, NEAREST 100 FT
Pos report	ID, POS, TIME, ALT, NEXT + ETA
ME:	N372SE, over LCH 1532Z, 4500, BPT 1555Z
4500	FOUR THOUSAND FIVE HUNDRED
133.15	ONE THREE THREE POINT ONE FIVE
KSGR SUGAR LAND (DESTINATION)	

D-ATIS, GND	118.125, 121.4
TWR / CTAF	118.65; 0600 TO 2200 LOCAL
CD	121.4; 119.25 TWR CLOSED
Class D	SFC TO 2600 MSL, 4.2 NM; ELSE E
Rwy	17/35 8000 x 100, LEFT TFC

N372SE FLIGHT PLANNING *Summary only. AFM, AIM, Chart Supplement govern. [V] = verify*

PREFLIGHT PLANNING (91.103 ALL INFO)	
PIC (Cédric unless agreed)	GO / NO GO
Josh (sport, no B/C/D, CS prop)	NOT PIC [V]
PAVE: IMSAFE, aircraft, enV, external	CHK
Currency 61.57, FR 61.56, medical, docs	CHK

WEATHER	
1800wxbrief.com / 1-800-992-7433	LOGGED
GFA, METAR / TAF, PIREPs	CHK
AIRMET S / T / Z, SIGMET, convective	CHK
Winds aloft, freezing level	CHK
Tropical (NHC); Windy	EXTRA ONLY

NOTAMS / TFRS (91.137 TO 91.145)	
NOTAMS: dep, dest, route, alternates	CHK
TFRs: stadium, launch, VIP, fires	CHK
Stadium 3 NM, 3000 AGL, 1 H BEFORE/AFTER	
Football season	SUPERDOME, LSU
ForeFlight TFR	RED ACTIVE, YELLOW LATER
TFR source	NOT ON CHART: TFR.FAA.GOV

ROUTE / ALTITUDE	
Airspace crossed: class, flr, ceil, freq	LISTED
Each one: over / under / around / call	DECIDED
Terrain, towers, MSA	CHK
MOA, R, Alert on route: times	CHK [V]
VFR cruise altitude 91.159 (p5)	PICKED
Alternates + diversion fields	PICKED
KNEW to KSGR (FF 11 Oct)	305 NM, 2H23 [V]
Freqs: ATIS, GND, TWR, APP, CTAF	NOTED
Taxi diagrams DEP / ARR / ALTN	CHK
Hot spots, rwy xings, FBO	NOTE

<i>Source: FF Airports > Procedures > Taxi diag.</i>	
91.119 congested	1000 ABOVE OBST IN 2000 FT
91.119 other	500 FROM SFC / PERSONS
91.119 anywhere	SAFE FORCED LANDING ALT
SVFR 91.157	PERSONAL MIN: NO SVFR

FUEL (91.151)	
Legal day / night	DEST + 30 / 45 MIN AT CRUISE
Personal	LAND WITH 1 H
Plan	10 GPH INCL CLIMB, TAXI
50 gal usable	5 H TOTAL, MAX LEG 3.5 H

W&B / PERFORMANCE	
W&B: empty wt + CG, pax, bags, fuel	ACTUAL
W&B at T/O and at landing	IN LIMITS
MTOW / MLW	2646 LB / MLW [V]
T/O + ldg dist AFM 5: DA, wet, grass	VS RWY

FILE / BRIEF	
VFR flight plan (FSS, ForeFlight)	FILED
Flight plan	ACTIVATE + CLOSE
Flight following (p4)	PLANNED
ForeFlight brief, nav log, sunset	DONE

FOREFLIGHT / CHART SUPPLEMENT	
Map tap > Airspace	CLASS, FLR/CEIL, SUA HRS
Profile view	AIRSPACE ALONG ROUTE
Airport > Info, CS	FREQS, TPA, HOURS
Layers	NOTAM + TFR, ROUTE ADVISOR
Chart Supplement	REMARKS, TWR HRS, SUA
Sectional margin	SUA TABLE, FREQ TABLE

ARRIVAL PLANNING (NXi + GFC 700)	
<i>Cédric method per Eric. Verify with Eric [V].</i>	
1 FPL	DEST: D> OR END OF FPL
2 PROC, load appr	RNAV GPS RWY / VISUAL
Goal	FINAL FIX ABOUT 3 NM
Visual (new SW)	STRAIGHT 3 TO 4 NM / VECTORS
<i>Visual: 3° GPS path, advisory, no obst clearance.</i>	
3 Plan descent to	FIX BEFORE FINAL
Target	1000 AGL AT 3 NM OR TPA
3° path	ABOUT 300 FT/NM
Aim	LEVEL + SLOW BEFORE FINAL
Check	TOD 1 MIN, VSR, VDI CHEVRON
FPA	3° DEFAULT (MFD VNV PROF)
4 AP descent only	NAV (GPS) + VNV
ALT SEL	TARGET, 75+ FT BELOW CURRENT
VPTH	WHITE ARMED, GREEN ACTIVE
At TOD	ACK: VNV KEY / ALT SEL, 5 MIN
ALT SEL has priority	VNV ENDS: ALT HOLD
5 AP flies final laterally	NAV + APR ARMED
LPV, LNAV+V, Visual / ILS	GP / GS
VPTH	HANDS OVER TO GP / GS
GP / GS ignores ALT SEL	AP WILL NOT LEVEL
Disconnect by	___ AGL (ERIC) [V], HAND FLY
VNV needs	GPS CDI, FPL ALT CONSTRAINT
N372SE SW has Visual appr	[V] CHECK
VFR use of approaches	[V] BRIEF WITH ERIC
Tell ATC / CTAF	"VISUAL STRAIGHT IN"
Always	LOOK OUTSIDE

SECTIONAL / SUA (B C D E, VEIL: p2)	
D twr closed	E OR G (CS); STAR = PART TIME
E other floors	BLUE ZIPPER LINE + VALUE
P (P-56)	BLUE HATCHED; NEVER ENTER
R (R-4401)	BLUE HATCHED; HOT = AGENCY OK
W (W-237)	BLUE HATCHED; 3 NM+ OFF COAST
MOA	MAGENTA HATCHED; ASK IF HOT
Alert A-381	MAGENTA HATCHED; S+A, NO CLNC
<i>A-381 SFC to 2000 MSL, sunrise to sunset (Eric).</i>	
MTR IR / VR 4 digit	GREY; AT/BELOW 1500 AGL
ADIZ	MAGENTA DOTS; GULF: DVFR TO LEAVE
SUA times / alts	CHART MARGIN, FF TAP
TRSA (DEPICTION p2, FREQ p5)	
TRSA	VOLUNTARY, NOT A CLASS; CORE D
AIRPORT SYMBOLS	
Blue / magenta	TOWERED / NON TOWERED
Ticks; R or (Pvt)	FUEL, SERVICES; PRIVATE
Star; X	BEACON; CLOSED
CT 118.3*; C in circle	PART TIME TWR; CTAF
Rwy 50; RP	5000 FT; RIGHT PATTERN
GULF / LOCAL	
Gulf	W AREAS, RIGS, HELOS, TS
LA marsh	TOWERS TO 2000 AGL
Over water glide	1.45 NM / 1000 FT; PLAN SHORE

N372SE SAMPLE RADIO CALLS *KNEW to KSGR example. AIM 4-2, 4-3, P/CG govern. [V] = verify*

1 KNEW ATIS 124.9 (ALWAYS FIRST)

Copy LETTER, WIND, RWY, ALTIM, NOTAMS
ATIS says VFR CD 127.4 OR GROUND 121.7
New freq: full callsign. Abbreviate only after ATC does: Diamond Two Sierra Echo (AIM 4-2-4).

2 GROUND 121.7 (OR CD 127.4 PER ATIS)

ME: Lakefront Ground, Diamond Three Seven Two Sierra Echo, DA40, at [FBO], VFR to Sugar Land, 4500, request flight following, with [Alpha]
ATC: Diamond Three Seven Two Sierra Echo, squawk 4521, maintain at or below 2500, departure 133.15, runway 18R, taxi via [twy]
ME: 4521, at or below 2500, departure 133.15, runway 18R via [twy], Diamond Three Seven Two Sierra Echo

3 LAKEFRONT TOWER 118.95: TAKEOFF

ME: Lakefront Tower, Diamond Three Seven Two Sierra Echo, holding short 18R at [twy], ready for departure, westbound
ATC: Diamond Two Sierra Echo, Lakefront Tower, right turn westbound approved, runway 18R, cleared for takeoff
ME: Right turn westbound, runway 18R, cleared for takeoff, Diamond Two Sierra Echo
ATC: Diamond Two Sierra Echo, contact departure
ME: Departure, Diamond Two Sierra Echo

4 NEW ORLEANS DEPARTURE 133.15

ME: New Orleans Departure, Diamond Three Seven Two Sierra Echo, 1500 climbing 2500
ATC: Diamond Two Sierra Echo, radar contact 2 miles south of Lakefront
ATC: Diamond Two Sierra Echo, cleared into Class Bravo, maintain VFR at or below 3500
ME: Cleared into Class Bravo, at or below 3500, Diamond Two Sierra Echo
ATC: Diamond Two Sierra Echo, VFR altitude your discretion
ME: Climbing 4500, Diamond Two Sierra Echo

5 HANDOFF, CHECK IN: CALLSIGN, ALTITUDE

ATC: Diamond Two Sierra Echo, contact New Orleans Departure 123.85
ME: 123.85, Diamond Two Sierra Echo
ME: New Orleans Departure, Diamond Three Seven Two Sierra Echo, 4500
ATC: Diamond Two Sierra Echo, altimeter [30.02]
ME: [30.02], Diamond Two Sierra Echo
Same format, next LFT 121.1, 128.7; LCH 119.8
Then (KSGR area) HOUSTON APP 123.8
Freqs, mws, codes, letters: examples. Use as assigned.

6 TRAFFIC CALLS (PICG)

ATC: Diamond Two Sierra Echo, traffic 2 o'clock, 5 miles, eastbound, Cessna, 4000
ME: Looking, Diamond Two Sierra Echo
ME: Traffic in sight, Diamond Two Sierra Echo
ME: Negative contact, Diamond Two Sierra Echo
"Looking" is common use, not a P/CG term.

7 ALTITUDE CHANGE (LAFAYETTE APP)

ME: Diamond Two Sierra Echo, request climb to 6500
ATC: Diamond Two Sierra Echo, VFR altitude your discretion
ME: Climbing 6500, Diamond Two Sierra Echo

8 HOUSTON APPROACH 123.8: CLASS BRAVO

ME: Houston Approach, Diamond Three Seven Two Sierra Echo, 6500
ME: Diamond Two Sierra Echo, request Class Bravo transition, direct Sugar Land
ATC: Diamond Two Sierra Echo, cleared into Class Bravo, direct Sugar Land, maintain VFR at or below 3500
ME: Cleared into Class Bravo, direct Sugar Land, at or below 3500, Diamond Two Sierra Echo
ATC: Diamond Two Sierra Echo, remain outside Class Bravo
ME: Remain outside Bravo, Diamond Two Sierra Echo

9 KSGR ATIS 118.125 (COM2), APPROACH

ME: Diamond Two Sierra Echo, information [Delta] received for Sugar Land
ATC: Diamond Two Sierra Echo, Sugar Land 12 o'clock, 12 miles, contact Sugar Land Tower 118.65
ME: Tower 118.65, Diamond Two Sierra Echo

10 SUGAR LAND TOWER 118.65

ME: Sugar Land Tower, Diamond Three Seven Two Sierra Echo, 12 miles east, 2500, information [Delta], landing
ATC: Diamond Two Sierra Echo, Sugar Land Tower, enter left downwind runway 17
ME: Left downwind 17, Diamond Two Sierra Echo
ATC: Diamond Two Sierra Echo, number 2, follow Cessna on base, runway 17, cleared to land
ME: Number 2, Cessna in sight, runway 17, cleared to land, Diamond Two Sierra Echo
ATC: Diamond Two Sierra Echo, turn left [twy], contact Ground 121.4
ME: Left [twy], Ground 121.4, Diamond Two Sierra Echo

11 SUGAR LAND GROUND 121.4: TO FBO

ME: Sugar Land Ground, Diamond Three Seven Two Sierra Echo, clear of 17 at [twy], to [FBO]
ATC: Diamond Two Sierra Echo, taxi to [FBO] via [twy]
ME: [FBO] via [twy], Diamond Two Sierra Echo

VARIANTS
CANCEL FLIGHT FOLLOWING

ME: Houston Approach, Diamond Two Sierra Echo, field in sight, cancel flight following
ATC: Diamond Two Sierra Echo, radar service terminated, squawk VFR, frequency change approved
ME: Squawk VFR, Diamond Two Sierra Echo
GO AROUND
ME: Diamond Two Sierra Echo, going around
ATC: Diamond Two Sierra Echo, make left closed traffic runway 17
ME: Left closed traffic 17, Diamond Two Sierra Echo
No instruction: overfly rwy, climb to TPA, crosswind.

SAY AGAIN / UNABLE

ME: Diamond Two Sierra Echo, say again
ATC: Diamond Two Sierra Echo, turn right heading 360
ME: Unable, weather ahead, Diamond Two Sierra Echo
CTAF, UNCONTROLLED FIELD (AIM 4-1-9)

ME: [Field] traffic, Diamond Three Seven Two Sierra Echo, 10 miles east, 2500, inbound, landing runway 26, [Field]
Self announce 10 NM out; field name first and last.

N372SE CREW BRIEFING *KNEW to KSGR example. AFM governs. [V] = verify*

1 ROLES: WHO DOES WHAT

PIC, left seat CÉDRIC: FLIES, DECIDES
Radios CÉDRIC (JOSH ONLY IF ASKED)
Josh, right seat (owner) LOOKOUT, CALLS TRAFFIC
Josh also READS CHECKLISTS, CALLOUTS
Josh also FREQS, FOREFLIGHT, NAV LOG
Josh monitors ENGINE, FUEL, TANK TIME
Controls handover YOU HAVE / I HAVE / YOU HAVE
Say all 3, look to confirm. Never both, never none.

Josh takes controls ONLY IF PIC SAYS / INCAP
Sterile cockpit TAXI + BELOW 1000 AGL
Abort / go around ANYONE CALLS, PIC ACTS
Any concern (CRM) SAY IT NOW, PIC ANSWERS
Disagree SAFER OPTION; TALK ON GND

2 DEPARTURE KNEW (ELEV 7)

ATIS 124.9: letter; rwy ____ ; ____
Wind; altimeter ____ ; ____
18R/36L (main) 6880 x 150, ASDA 6035/5955
18L/36R (short) 3697 x 75
09/27 3114 x 75; PAPIs U/S (NOTAM)
Around field LAKE N, CITY + RIVER S
T/O mass ____ LB (MAX 2646)

ABORT: BEFORE ROTATION = ABORT

Any warning; door open ABORT
Static RPM (AFM 4A.3.7) 2680 ±20, ELSE ABORT
Airspeed not alive ABORT
Abort (AFM 3.2.2) THROTTLE IDLE, BRAKES
Abort point ____ (RWY LEFT / TWY)
Rotate vR (AFM 4A.3.7) 59 KIAS
Climb vY, flaps T/O 67 (2646), 66 (2535 LB)

EFATO PLAN

Speed, flaps T/O 74 (2646), 72 (2535 LB)
Below 500 AGL AHEAD; WITHIN 30°
Rwy 36L ahead LAKE (SHORELINE: CHK MAP)
Rwy 18R ahead WALL, CITY: CHK MAP [V]
*18R: 7 ft wall at end (CS), then levee, roads, homes.
Industrial Canal just W of field. No open field known.*
Above 1000 AGL TURN BACK ONLY IF ALT OK
AFM: below safe height turning back can be fatal.

EFATO MEMORY (AFM 3.2.2, IF TIME)

Fuel selector; pump CHK TANK; ON
Ignition; throttle BOTH; MAX PWR
RPM; mixture; alt air HIGH; RICH; OPEN
No power LAND AHEAD, MAYDAY
Then (AFM 3.5.1) FUEL OFF, FLAPS LDG
Then BELTS TIGHT, IGN + MASTER OFF
Ditching (lake) NO AFM PROCEDURE [V]
*Canopy unlatch before water: not in AFM [V].
AFM: canopy may be unlatched in flight (smoke).*

3 ROUTE KNEW TO KSGR (15 OCT)

ETD; ETE; alt 10:00 CDT; 2H16 [V]; 6500
Route KNEW RQR LFT LCH BPT KSGR
Dep hdg; first alt ____ (TWR); ____ (CD)
Flight following NOLA DEP 133.15 N, 123.85 S

AIRSPACE (WEST: EVEN + 500 = 6500)

NOLA B (MSY) OUT, OR CLEARED IN
LFT C APP 121.1 / 128.7; CEIL [V]
LCH TRSA (core D [V]) APP 119.8 / 119.35
BPT TRSA VOLUNTARY; FF HANDLES
Houston B shelf (KSGR) UNDER IT OR CLEARED
Alert A-381 (coast) SFC TO 2000, BELOW US [V]
Terrain MARSH, WATER, TOWERS
Glide from 6500 (AFM 3.4) ABOUT 9 NM, NO WIND
DIVERSIONS (NRST ON G1000)

Near LFT KLFT (04R/22L ONLY), KARA
Near LCH KLCH, KCWF
Near BPT KBPT, KORG
Near KSGR KAXH, KTME, KHOU (B)

FUEL (50 USG USABLE)

On board; burn ____ USG; 9 TO 11 GPH
Trip at 10 GPH ABOUT 23 + TAXI, CLIMB
Reserve LEGAL 30 MIN; PERSONAL 1 H
Tanks (pump ON) HOURLY, MAX DIFF 8 GAL

WEATHER / GO NO GO

Ceiling; vis; wind ____ ; ____ ; ____
Personal mins CIG ____ VIS ____ XW ____
TS, fog, below mins NO GO / DELAY / DIVERT
NOTAMs (PULLED 14 OCT 17:10Z)

HRV VORTAC U/S
KNEW 18R LOC U/S TO 16 OCT 2000Z
KLFT ONLY 04R/22L OPEN
KLCH fuel NO SELF SERVE TO 22 OCT
KSGR UAS N/NWW/2 to 5 NM SFC TO 400 AGL
KSGR UAS 5 NM SSE SFC TO 50 AGL

4 ARRIVAL KSGR (ELEV 81)

ATIS 118.125; letter ____
Houston Approach 123.8
Class D UNDER HOUSTON B SHELF [V]
Rwy 17/35 8000 x 100, LEFT TFC BOTH
Expected rwy; TPA ____ ; ____ (CS) [V]
TWR; GND 118.65; 121.4
Taxi diagram, hot spots CHK

5 EMERGENCIES QUICK

Flies; radios CÉDRIC; CÉDRIC
Reads checklist aloud JOSH
Squawk; freq 7700; ATC, ELSE 121.5
Engine fail en route GLIDE 76 (2646), 73 (2535)
Then NEAREST FIELD, TURN TO IT
Restart (AFM 3.2.4) 80 KIAS, FULLEST TANK
Then IGN BOTH, MIXTURE CHK
Then PUMP ON, ALT AIR OPEN
No start: mixture LEAN, THEN SLOWLY FWD
No restart LAND ENGINE OFF (3.5.1)
Josh MAYDAY CALL IF PIC ASKS

N372SE CREW BRIEFING (BLANK) Any flight: fill in. AFM governs. [V] = verify

1 ROLES: WHO DOES WHAT

PIC, flying : FLIES, DECIDES

Radios

Other pilot / pax : LOOKOUT, TRAFFIC

Reads checklists, callouts

Freqs, ForeFlight, nav log

Monitors engine, fuel

Controls handover YOU HAVE / I HAVE / YOU HAVE

Say all 3, look to confirm. Never both, never none.

Other takes controls ONLY IF PIC SAYS / INCAP

Sterile cockpit TAXI + BELOW 1000 AGL

Abort / go around ANYONE CALLS, PIC ACTS

Any concern (CRM) SAY IT NOW, PIC ANSWERS

Disagree SAFER OPTION; TALK ON GND

2 DEPARTURE (ELEV)

ATIS : letter; rwy ; ;

Wind; altimeter ; ;

Rwy length; ASDA ; ;

NOTAMs at field

Around field

T/O mass LB (MAX 2646)

ABORT: BEFORE ROTATION = ABORT

Any warning; door open ABORT

Static RPM (AFM 4A.3.7) 2680 ±20, ELSE ABORT

Airspeed not alive ABORT

Abort (AFM 3.2.2) THROTTLE IDLE, BRAKES

Abort point (RWY LEFT / TWY)

Rotate vR (AFM 4A.3.7) 59 KIAS

Climb vY, flaps T/O 67 (2646), 66 (2535 LB)

EFATO PLAN

Speed, flaps T/O 74 (2646), 72 (2535 LB)

Below 500 AGL AHEAD, WITHIN 30°

Rwy ahead

Rwy ahead

Above 1000 AGL TURN BACK ONLY IF ALT OK

AFM: below safe height turning back can be fatal.

EFATO MEMORY (AFM 3.2.2, IF TIME)

Fuel selector; pump CHK TANK; ON

Ignition; throttle BOTH; MAX PWR

RPM; mixture; alt air HIGH; RICH; OPEN

No power LAND AHEAD, MAYDAY

Then (AFM 3.5.1) FUEL OFF, FLAPS LDG

Then BELTS TIGHT, IGN + MASTER OFF

Ditching NO AFM PROCEDURE [V]

3 ROUTE TO (DATE)

ETD; RTE; alt ; ; ;

Route

Dep hdg; first alt ; ;

Flight following

VFR alt (91.159) E ODD + 500, W EVEN + 500

AIRSPACE ON ROUTE

B / C

D / TRSA

MOA, R, Alert, TFR

Terrain, water

Glide (AFM 3.4) 1.45 NM PER 1000 FT AGL

DIVERSIONS (NRST ON G1000)

First third

Middle

Last third

FUEL (50 USG USABLE)

On board; burn USG; 9 TO 11 GPH

Trip; landing fuel ; ;

Reserve LEGAL 30 MIN; PERSONAL 1 H

Tanks (pump ON) HOURLY, MAX DIFF 8 GAL

WEATHER / GO NO GO

Ceiling; vis; wind ; ; ;

Personal mins CIG VIS XW

TS, fog, below mins NO GO / DELAY / DIVERT

NOTAMs

Nav aids

Dep / dest

En route, UAS, TFR

4 ARRIVAL (ELEV)

ATIS; letter ; ;

Approach

Airspace

Expected rwy; TPA ; ;

Pattern side

TWR / CTAF; GND ; ;

Taxi diagram, hot spots CHK

5 EMERGENCIES QUICK

Flies; radios ; ;

Reads checklist aloud

Squawk; freq 7700; ATC, ELSE 121.5

Engine fail en route GLIDE 76 (2646), 73 (2535)

Then NEAREST FIELD, TURN TO IT

Restart (AFM 3.2.4) 80 KIAS, FULLEST TANK

Then IGN BOTH, MIXTURE CHK

Then PUMP ON, ALT AIR OPEN

No start: mixture LEAN, THEN SLOWLY FWD

No restart LAND ENGINE OFF (3.5.1)

N372SE GFC 700 AUTOPILOT (1/2) Garmin NXi PG/CRG (DA40NG). AFMS governs. [V] = verify

AFCS KEYS ON MFD BEZEL (PG 356)

AP AP + FD ON / AP OFF

FD FD ONLY; INOP WHILE AP ON

HDG, NAV, APR LATERAL MODE ON / OFF

ALT, VS, FLC, VNV VERTICAL MODE ON / OFF

NOSE UP / NOSE DN PIT, VS, FLC REFERENCE

ALT SEL knob BIG 1000 FT, SMALL 100 FT

HDG knob BUG; PUSH = SYNC TO HDG

STICK + THROTTLE (PG 357)

AP DISC (each stick) AP OFF, STOPS TRIM

CWS (top left stick) HOLD: HAND FLY, AP ON

GO AROUND (L throttle) AP OFF, FD TO / GA

AP TRIM (left stick) BOTH HALVES = MET

One half held over 3 s: PTRM, manual trim off.

No YD key: none listed in PG for DA40 [V].

No LVL key: LVL comes only from ESP (PG 382).

STATUS BOX, TOP OF PFD (PG 359)

Left / center / right LATERAL / AP / VERTICAL

White ARMED

Green ACTIVE

Green flashing 10 s ARMED BECAME ACTIVE

Yellow flashing mode DATA LOST > ROL / PIT

Green AP AUTOPILOT ENGAGED

White CWS CWS HELD

Yellow AP flash 5 s MANUAL DISCONNECT

Red / white AP flashing AUTO DISC: PRESS AP DISC

Auto disconnect: failure, bad sensor data, stall warning, FD default modes lost (PG 385).

ENGAGE + COUPLE (PG 358, 384)

1 Trimmed, on desired path THEN AP

2 AP key AP + FD IN ROL / PIT

3 ALT SEL TARGET ALT FIRST

4 Lateral key HDG OR NAV

5 Vertical key VS, FLC OR ALT

6 Status box CHECK GREEN + WHITE

FD off: first mode key turns FD on in that mode.

NAV / APR need valid VOR, LOC or GPS course.

PREFLIGHT AP TEST (AFM 4A.3.4)

Power up WHITE PFT, THEN TONE

During PFT DO NOT PRESS AP DISC

PFD NO AP ANNUNCIATIONS

AP DISC held + trim TRIM MUST NOT RUN

AP key ENGAGES; CAN OVERPOWER

AP DISC AP OFF + TONE

GA button FD CLIMB CUE, THEN FD OFF

Trim T/O POSITION, MANUAL

GA step: Diamond DA40-180 checklist Ed. 17.

Overpower check + feel the force: PG 388.

VERTICAL MODES (PG 361 TO 377)

PIT (default) HOLD PITCH, 15 DN TO 16 UP

ALTS white WILL CAPTURE ALT SEL

ALTS green CAPTURING, ALT ARMED

ALT HOLD ALT (NEAREST 10 FT)

VS HOLD FPM, 3000 DN, 1500 UP

FLC HOLD IAS TO ALT SEL

VPTH (VNV key) FLY FPL VNAV DESCENT

ALTV CAPTURE VNV TARGET ALT

GP SBAS GLIDEPATH (RNAV)

GS ILS GLIDESLOPE

TO / GA SET PITCH UP, WINGS LEVEL

ALTS arms with PIT, VS, FLC, VPTH; with TO / GA only if ALT SEL is 400 ft or more above.

ALTITUDE PRESELECT (PG 70, 363)

ALT SEL SET BEFORE CLIMB / DESCENT

1000 ft to go ALT SEL FLASHES 5 S

200 ft to go TONE + FLASH

50 ft to go ALTS > ALT, GREEN FLASH

Leaves +/- 200 ft later TONE, AMBER

Turn ALT SEL in ALTS PIT + ALTS FOR NEW ALT

Turn ALT SEL in ALT AP KEEPS OLD ALT

ALT key HOLD CURRENT ALT NOW

CLIMB / DESCEND WITH VS

1 ALT SEL NEW ALTITUDE

2 VS key CURRENT FPM = REFERENCE

3 NOSE UP / DN 100 FPM PER PRESS

4 Power SETS AIRSPEED

VS holds fpm, not speed. PG lists overspeed protection only, no low speed protection.

CLIMB / DESCEND WITH FLC

1 ALT SEL SET BEFORE FLC (PG NOTE)

2 FLC key CURRENT IAS = REFERENCE

3 NOSE UP / DN 1 KT PER PRESS

4 Power UP TO CLIMB, DOWN TO DESC

FLC flies IAS with pitch; power makes it climb or descend. Never goes away from ALT SEL.

PITCH HOLD (PIT)

NOSE UP / DN 0.5 DEG PER PRESS

CWS, hand fly, release NEW REFERENCE

OVERSPEED: MAXSPD (PG 387)

Yellow MAXSPD REDUCE POWER / PITCH

Active in PIT, VS, FLC, VPTH, ALTS. Not in ALT, GS or GP.

DA40 Vno / Vne (AFM 2.2) 129 / 178 KIAS

VNAV (PG 372 TO 376)

Needs GPS CDI, FPL ALT, VNV ON

ALT SEL 75 FT OR MORE BELOW

VPTH flashing at TOD VNV KEY OR ALT SEL

No acknowledgment: path not captured. Cyan FPL altitudes are used, white are reference only.

N372SE GFC 700 AUTOPILOT (2/2) *Garmin NXi PG/CRG (DA40NG). AFMS governs. [V] = verify*

LATERAL MODES (PG 367 TO 382)

ROL (default)	<6 DEG LEVELS, ELSE HOLDS
HDG	FLY HDG BUG, MAX 25 DEG
GPS (NAV, CDI GPS)	FPL / DIRECT TO STEERING
VOR (NAV, CDI VOR)	CRS KNOB + DEVIATION
LOC (NAV, CDI LOC)	LOC ONLY, NO GS
BC	BACKCOURSE, CRS = FRONT
LVL	ESP ONLY: LEVEL, 0 FPM
<i>ROL holds bank 6 to 25 deg, limits to 25 deg.</i>	
<i>Bug moved over 330 deg at once: turn reverses.</i>	

INTERCEPT A COURSE

1 CDI softkey	GPS, VOR1/LOC1, VOR2/LOC2
2 CRS knob (VOR, LOC, OBS)	SET COURSE
3 HDG bug + HDG key	INTERCEPT HEADING
4 NAV key	WHITE = ARMED
5 Needle alive	WHITE > GREEN, HDG ENDS
<i>CDI over 1 dot at NAV press: arms. Under 1 dot: captures at once (PG 369).</i>	

AP DROPS TO ROL, WINGS LEVEL, IF

CDI source changed by hand	NAV / APR LOST
New VOR tuned in VOR NAV	VOR RE-ARMS
VTF activated in APR	APR LOST
ILS: FAF crossed in GPS NAV	AFTER AUTO SWITCH

CWS (CONTROL WHEEL STEERING)

HDG, NAV, APR, BC	RETURNS TO BUG / COURSE
ROL, PIT, VS, FLC, ALT	NEW REF ON RELEASE
GS, GP, ALTS, VPTH	MODE KEPT

ESP (PG 8; CRG 105)

Bank past 45 deg	FORCE 30 TO 75 DEG
Pitch past 17 up, 15 dn	OPPOSING FORCE
High airspeed	NOSE UP FORCE
Active 10 s of 20 s	AP ON IN LVL + AURAL
Interrupt	HOLD AP DISC OR CWS
Enable / disable	AUX SYSTEM SETUP 2
<i>ESP is optional; on at power up. On N372SE? [V]</i>	

DISCONNECT (PG 357, 385)

AP DISC (stick)	MAIN; 2ND PRESS MUTES
AP TRIM, ARM half	ALSO DISCONNECTS
AP key (MFD)	ALSO DISCONNECTS
GA button	AP OFF, FD GA

SUSPECTED AP / TRIM FAULT (PG 388)

1 Control stick	GRIP FIRMLY
2 AP DISC	PRESS + HOLD
3 Trim	RETRIM, MAY BE LARGE
4 AP circuit breakers	PULL [V] WHICH
5 AP DISC	RELEASE

Do not push stick with AP on: autotrim runs out of trim, big forces at disconnect (PG 388).

COUPLED RNAV (GPS) APPROACH

1 PROC	LOAD + ACTIVATE (OR VTF)
2 CDI	GPS
3 Tmr/Ref, MINS	BARO MDA / DA
4 APR key	GPS + GP WHITE
5 At FAF, path valid	GP GREEN
<i>GP needs: approach in FPL (no off route D>), active wpt at or after FAF, CDI under full scale, no SUSP. LNAV+V = advisory: fly to MDA. AP coupled will NOT level at MDA even if MDA is in ALT SEL (PG 376).</i>	

COUPLED ILS / LOC

1 PROC	LOAD ILS, LOC FREQ TUNED
2 CDI	GPS (AUTO SWITCH) OR LOC
3 APR key	LOC + GS WHITE
4 Auto switch GPS > LOC	FAF ACTIVE, <15 NM
5 Capture	LOC, THEN GS GREEN
<i>Auto switch also needs GPS CDI under 1.2 x full scale. Can be above GS at switch (PG 61). LOC capture inhibited if HDG vs LOC over 105 deg.</i>	

MISSED APPROACH / GO AROUND

GA button	AP DISCONNECTS
FD	GA: PITCH UP, WINGS LEVEL
Hand fly	POWER, PITCH, FLAPS
Misssed sequence	GA BTN OR PROC > MISSED
Then	ALT SEL, AP, HDG OR NAV
<i>GA disengages AP unless a lift computer is fitted (PG 371). GA loads missed if GPS, or VOR/LOC tuned.</i>	

AFCS ALERTS ON PFD (PG 386)

AIL / ELE + arrow	SERVO HOLDING FORCE
PTRM, AP on	TAKE CONTROL, AP OFF
PTRM, AP off	WIGGLE AP TRIM HALVES
ROLL / PTCH	AXIS FAILED, AP INOP
Red AFCS	AP + MET INOP, FD MAYBE
PFT white / red	TESTING / TEST FAILED
<i>PFT fail after AP DISC during test: cycle servo power.</i>	

COMMON TRAPS

ALT SEL not set	NO ALTS: NO LEVEL OFF
HDG green, NAV white	NOT ON COURSE YET
ILS with CDI on GPS	WATCH SWITCH TO LOC
CDI changed by hand	AP GOES ROL
Direct to off FPL	NO GP / GPS APR
FLC, power unchanged	NO CLIMB OR DESCENT
Turned ALT SEL in ALT	STILL HOLDS OLD ALT
VPTH white flashing	ACK OR NO DESCENT

AP LIMITS: FILL FROM GFC 700 AFMS

Min engage height	_____
Min use on approach	_____
Max / min AP speed	_____
Other limits	_____

Not on the box: AFMS A30 / GFC 700 supplement is listed in AFM 9.2 but not included [V].

N372SE G1000 NXi FLIGHT PLAN *Garmin NXi PG/CRG (DA40NG). AFMS governs. [V] = verify*

KNOBS + KEYS (PG 5, 6)

FMS push	CURSOR ON / OFF
FMS large	FIELD; MFD PAGE GROUP
FMS small	CHARACTER; MFD PAGE
ENT / CLR	ACCEPT / DELETE, BACK
MENU	PAGE OPTIONS
CLR held (MFD)	DEFAULT NAV MAP
FPL on PFD	FPL WINDOW, CURSOR ON

CREATE ACTIVE FPL (CRG 29)

1 FPL, push FMS	CURSOR (MFD)
2 Origin: small FMS	TYPE ID, ENT
3 Set Runway	SMALL FMS, ENT, ENT
4 Large FMS to dest	ID, ENT, RWY, ENT, ENT
5 Enroute dashes	ID, ENT, EACH WPT
6 Done	PUSH FMS
<i>Small FMS clockwise: blank entry. Counterclockwise: FPL, NRST, Recent, User, Airway lists.</i>	

EDIT ACTIVE FPL (CRG 30 TO 38)

Insert wpt	HIGHLIGHT NEXT WPT, ID
<i>New wpt goes in front of the highlighted one.</i>	
Delete wpt	HIGHLIGHT, CLR, OK, ENT
Delete airway, procedure	HIGHLIGHT HEADER, CLR
Delete whole FPL	MENU, DELETE FLIGHT PLAN
Airway: wpt after entry	SMALL FMS, LD AIRWY
<i>Pick airway, ENT; pick exit, ENT; Load? ENT.</i>	
Activate leg	HIGHLIGHT LEG END, ACT LEG
Change destination	HIGHLIGHT DEST, NEW ID [V]
Invert active	MENU, INVERT FLIGHT PLAN
Store active	MENU, STORE FLIGHT PLAN

STORED PLANS: FPL CATALOG

Open	FPL, SMALL FMS CLOCKWISE
Activate	HIGHLIGHT, ACTIVATE, OK
Invert + activate	INVERT SOFTKEY, OK
SD card	IMPORT / EXPORT SOFTKEYS
<i>Activating a stored or pending FPL replaces the active FPL. Export drops airways + procedures.</i>	

DIRECT TO (CRG 27, 28)

D> key, type ID	ENT, ENT (ACTIVATE?)
Wpt in FPL	SMALL FMS CCW, PICK, ENT, ENT
Set course	COURSE FIELD, ENT, ENT
Recenter course to wpt	D>, ENT, ENT
Cancel	D>, MENU, CANCEL D> NAV
<i>Cancel resumes the FPL on the closest leg.</i>	
VNV alt in D> window	LARGE FMS TO VNV FIELD

MORE FPL TOOLS (CRG 30 TO 41)

User wpt from map	JOYSTICK PAN, LD WPT
Parallel track	MENU, PARALLEL TRACK
VNV on / off (MFD FPL)	ENBL VNV / CNCL VNV
Distances	VIEW: CUM OR LEG-LEG

PROC KEY (CRG 47 TO 51)

Departure	SELECT DEP, RWY, TRANS
Arrival	SELECT ARR, TRANS, RWY
Approach	SELECT APPROACH, ENT
then transition	OR VECTORS, ENT
then minimums	BARO, VALUE, ENT; OR ENT
then	LOAD? OR ACTIVATE
Activate later	PROC, ACTIVATE APPROACH
Vectored to final	PROC, ACTIVATE VTF
Misssed approach	PROC, ACTIVATE MISSED
Remove approach	FPL, MENU, REMOVE APPR

VTF: inbound FAF course active. ILS: CDI goes to LOC, no GPS steering. AP in APR drops to ROL. NOT APPROVED FOR GPS: CDI to NAV for final. Approach with no arrival loaded: duplicate dest wpt added at end of enroute (PG 233).

APPROACH LEVEL ON HSI (CRG 49)

LPV, LP, L/VNAV	NEED SBAS, ELSE LNAV
LNAV+V, LP+V	ADVISORY VERTICAL
LNAV	LATERAL ONLY, MDA

NEAREST / EMERGENCY (CRG 22, 27)

PFD Nearest softkey	NEAREST AIRPORTS
MFD	LARGE FMS, NRST GROUP
Highlight airport, D>	ENT, ENT: GO DIRECT
Freq in window	HIGHLIGHT, ENT = STANDBY
Approach from NRST	APR, LD APR SOFTKEYS
COM swap key held 2 s	EMERGENCY FREQ ACTIVE
<i>MFD shows None Within 200nm if no airport.</i>	

FOREFLIGHT > G1000 VIA FS 510

Pair on ground	AUX, CONNEXT SETUP [V]
Flight Plan Import	ENABLED [V]
iPad	SETTINGS, BLUETOOTH
FF More > Devices	GARMIN CONNEXT TILE
FF route editor	SEND TO PANEL
MFD pop-up	PENDING FPL + CONNEXT
Preview	ENT
Activate	ACTIVATE SOFTKEY, OK, ENT
Store only	STORE SOFTKEY
Ignore	CLR OR IGNORE; IN CATALOG
Delete pending	CATALOG, DELETE, OK
Panel to FF	FF: LOAD FROM PANEL

Then check every wpt vs clearance; reload approach with PROC; VNV alts are not kept in stored FPLs. Panel steps: CRG 33 to 35. Setup page + FF steps: C172 NXi PG + FF Support notes. FS 510 module in MFD card slot: leave it in [V].

POWER UP (PG 8)

MFD power up page	CHECK DATABASE DATES
Then	ENT TO CONTINUE
Flags + annunciations	GONE IN ABOUT 1 MIN

