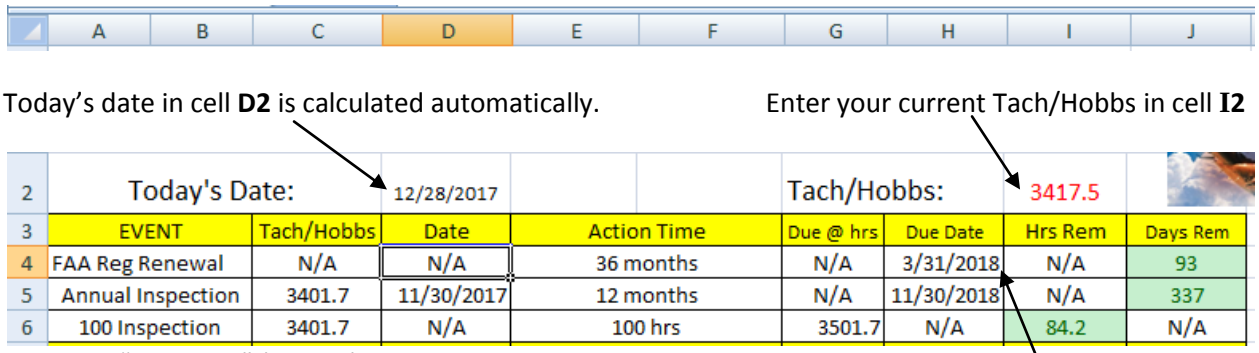
2018

Using the Mooney Flyer Aircraft Status Spreadsheet

Knowing Your Mooney

You can know exactly when inspections and overhauls are coming up. You won't be surprised when your mechanic tells you that something is due because you'll be telling him or her! You will be amazed at your increase in awareness and understanding of your aircraft. It's your aircraft and you're the boss; in charge of its mainitenance requirements, no matter how small.

Jim Price
The Mooney Flyer
1/1/2018



	A	B	C	D	E	F	G	H	I	J
2	Today's Date:			12/28/2017			Tach/Hobbs:		3417.5	
3	EVENT	Tach/Hobbs	Date	Action Time			Due @ hrs	Due Date	Hrs Rem	Days Rem
4	FAA Reg Renewal	N/A	N/A	36 months			N/A	3/31/2018	N/A	93
5	Annual Inspection	3401.7	11/30/2017	12 months			N/A	11/30/2018	N/A	337
6	100 Inspection	3401.7	N/A	100 hrs			3501.7	N/A	84.2	N/A

Today's date in cell **D2** is calculated automatically.

Enter your current Tach/Hobbs in cell **I2**

Line 4: In "Due Date" (cell **4H**), enter the expiration date shown on your FAA Reg Renewal (manual entry)

Line 5: Enter the last day of the month in which your last annual inspection was signed off in cell **5D**. (The Tach/Hobbs entry in cell **C5** is for information only).

Line 6: If you utilize 100 hour inspections, in cell **6D**, enter the Tach/Hobbs when your last 100 hr Inspection was performed.

You are going to go through the spreadsheet and enter applicable Tach/Hobbs times and dates in the C and D columns.

J13 is also a date you enter manually

	A	B	C	D	E	F	G	H	I	J
7	ENGINE		Tach/Hobbs	Date	Action Time		Due @ hrs	Due Date	Hrs Rem	Days Rem
8	Overhauled		2303	1/19/2004	TBO 1800 Hrs		4103	N/A	685.5	N/A
9	Top Overhaul		3294	11/22/2016			N/A	N/A		N/A
10	Turbo Overhaul		3244	6/13/2016	1,000 hrs		4244	N/A	826.5	N/A
11	Oil Change		3401.7	11/30/2017	25 - 50 hrs / 4 Mo		3426.7	3/30/2018	9.2	92
12	Oil Filter		3401.7	11/30/2017	25 - 50 hrs / 4 Mo		3426.7	3/30/2018	9.2	92
13	Air Filter - Eng		3401.17	11/30/2017	100 hrs or annual (x25)		New in '03	11/30/2018	Replace>	11/30/2028
14	Spark Plugs		2694	9/30/2008	Per Manufacturer					
15	Fuel Filter		3401.17	11/30/2017	Annually		N/A	11/30/2018		337
16	Mag-Left Inspect		3401.7	11/30/2017	500 hrs / 4 yrs		3901.7	11/30/2021	484.2	N/A
17	L Impulse Coupling AD		3401.7	11/30/2017	500 hr Bendix, AD 96-12-07		3901.7	N/A	484.2	N/A
18	Mag-Right Inspect		3401.7	11/30/2017	500 hrs / 4 yrs		3901.7	11/30/2021	484.2	N/A
19	R Impulse Coupling AD		3401.7	11/30/2017	500 hr Bendix, AD 96-12-07		3901.7	NA	484.2	N/A
20	Fuel Injectors		3401.7	11/30/2017	300 hrs / 2 yrs		3701.7	11/30/2019	284.2	N/A

Lines 11 and 12: Oil change and filter. In cells **11G** and **12 G**, the interval has been set up for 25 hours between oil changes. If you want to use a different interval, click on cell **11G** and enter =C11+ the desired interval number. For instance, if you want a 50 hour oil change interval, enter =C11+**50**. Apply the same formula for the oil filter in cell **12G**, that is =C12+**50**.

Line 13: Air Filter: This is usually addressed at annual. The due date would be 12 months after the date in cell **D13**. The formula in cell H13 is =EDATE(D13,**12**). Challenger Air Filters are good for 25 cleanings (25 years). Therefore, the manual entry in cell **J13** is 25 years beyond the new date that has been manually entered in cell **G13**.

The remaining days are calculated from the date of the last annual (cell **H15**) minus today's date (automatically inserted in cell **D2**). The formula in cell **J15** is =H15-D2.

Line 14: Your choice.

Line 15: This is checked Annually. The due date would be 12 months after the date in cell **D15**. The formula in cell **H15** is =EDATE(D15,**12**).

Lines 16 through 19: Magneto inspections and Bendix Coupling AD are calculated at 500 hours.

Line 20: Fuel injectors are calculated according to the action times in columns **E** & **F**.

	A	B	C	D	E	F	G	H	I	J
24	LANDING GEAR		Tach/Hobbs	Date	Action Time		Due @ hrs	Due Date	Hrs Rem	Days Rem
25	Gear Motor O/H		3283.6	10/30/2016	3-4,000 hrs.		7283.6	N/A	3866.1	N/A
26	Nose Shock Discs		2350	8/4/2004	Long B0d: 5-7 yrs, A-K: 12-15		N/A	8/4/2018	N/A	219
27	L Main Shocks		3151.6	9/30/2015	Long Bod: 5-7 yrs, A-K: 12-15		N/A	9/30/2029	N/A	4294
28	R Main Shocks		3151.6	9/30/2015	Long Bod: 5-7 yrs, A-K: 12-15		N/A	9/30/2029	N/A	4294
29	No Back Clutch Spring		3283.6	10/30/2016	1,000 hrs		4283.6	N/A	866.1	N/A

Lines 25 through 29: Enter the appropriate Tach/Hobbs times and Dates in the **C** and **D** columns.

Line 25: Gear Motor Overhaul is calculated at 4,000 hours. If your Mooney is used for daily training, you should change the formula to 2000 hours. The formula in cell **G25** is =C25+**4000**. If you want 2000 hours, change the formula to =C25+**2000**.

Lines 26 through 28: These are calculated for a short body – (14 years (168 months)). The current formula for nose shock is =EDATE(D26,**168**). Change formula in cell **H26** based on your body type. For instance, if you have a long body and want to change the due date to 6 years (72 months), change the formula in cell **H26** to =EDATE(D26,**72**). Likewise, you can change for formulas for the L Main in cell **H27** and the R Main in cell **H28** to =EDATE(D27,**72**) and =EDATE(D28,**72**) respectively.

Line 29: No Back Clutch Spring is set for 1,000 hours, per the Service Bulletin.

	A	B	C	D	E	F	G	H	I	J
30	INSTRUMENTS		Tach/Hobbs	Date	Action Time		Due @ hrs	Due Date	Hrs Rem	Days Rem
31	Static System		N/A	11/30/2017	2 Yrs		N/A	11/30/2019	N/A	702
32	Transponder		A/A	11/30/2017	2 Yrs		N/A	11/30/2019	N/A	702

Lines 31 and 32: Enter the last day of the month in which the inspection was complete. The due dates are set at 24 months. Days remaining are based on the dates in column **H** minus the current date (cell **D2**).

At the bottom of the Spreadsheet, you'll find a "Limits" tab. This includes the testing intervals and life limits for various Oxygen bottles.

Type of Bottle	***Testing Interval***	***Life Limit***
Engine Fire Extinguisher	***Every 5 years***	***No Life Limits On Engine Fire Bottles***
Oxygen Bottles Marked DOT 3AA & 3AL	***Every 5 years***	***No Life Limit***
Oxygen Bottles Marked DOT 3HT	***Every 3 Years***	***24 Year Life Limit***
Composite Oxygen Bottles(Mfg before 7/1/2006)	***Every 3 Years***	***15 Year Life Limit***
Composite Oxygen Bottles(Mfg after 6/30/2006)	***Every 5 Years***	***15 Year Life Limit***
Portable Fire Extinguisher	***Visual Inspection 6 Years Hydro Every 12 years***	***Manufacturer Regulates Life Limits or Stamped W/ DOT Designation***

	A	B	C	D	E	F	G	H	I	J
34	OXYGEN		Tach/Hobbs	Date	Action Time		Due @ hrs	Due Date	Hrs Rem	Days Rem
35	Hydrostatic Test		N/A	5/14/2015	See Limits TAB, (yrs)		N/A	5/14/2018	N/A	137
36	Oxy Bottle Replace		N/A	8/4/2004	See Limits TAB, (yrs)		N/A	8/4/2019	N/A	584

Enter the applicable dates in cells **D35** and **D36**.

Lines 35 and 36: These are based on a composite bottle manufactured before 2006 - 3 years (36 months) between hydrostatic tests and a life limit of 15 years (180 months). The formulas are =EDATE(D35,36) and =EDATE(D36,180). If you have a different bottle, just change the formula month numbers as needed. 5 years = 60 months. 24 years = 288 months.

	A	B	C	D	E	F	G	H	I	J
37	ELT		Type	Date	Action Time		Due @ hrs	Due Date	Hrs Rem	Days Rem
38	ELT Inspected		N/A	11/30/2017	12 months		N/A	11/30/2018	N/A	337
39	ELT Batt		Duracel	9/30/2015	Based on Batt Exp date		N/A	3/30/2019	N/A	457
40	Remote ELT Batt		Lithium	3/31/2012	Lithium: 8yrs. Alk: 4yr		N/A	3/31/2020	N/A	824

Enter the applicable dates in cells **D38**, **D39** and **D40**.

FAR 91.207: All of the batteries installed in the ELT must have the same expiration date and they must be replaced when the transmitter has been in use for more than 1 cumulative hour; **or upon reaching 50% of their useful life, (or for rechargeable batteries, upon reaching 50 percent of their useful life or charge), based on the expiration date on each battery cell.** The new expiration date for replacing (or recharging) the battery must be legibly marked on the outside of the transmitter and entered in the aircraft maintenance record. For example, if the new batteries were installed on 9/30/2015 and the Expiration date on the batteries was September 2022, they expire in 84 months (Sep 2015 to Sep 2022). 50% of 84 is 42. In 42 months, they batteries need to be replaced. You can change the due date in cell H39 by changing the formula =EDATE(D39,**42**). For instance, if 50% of the battery expiration date in months is 36, change the formula to =EDATE(D39,**36**).

THE ELT REMOTE CONTROL PANEL/INDICATOR – per manufacturer. Below is the information for an ACK ELT, with an 8 year replacement schedule. Ameri-King has a 5 year replacement requirement. **Check your ELT manual.**

THE REMOTE CONTROL PANEL/INDICATOR (RCPI), PART NUMBER E-01-05, IS DESIGNED TO BE POWERED BY A SINGLE DURACELL® PX28L 6 VOLT LITHIUM BATTERY. UNDER NORMAL OPERATING CONDITIONS THE **LITHIUM** BATTERY MUST BE REPLACED EVERY **EIGHT YEARS.** ALKALINE TYPE CELLS ARE AVAILABLE FROM VARIOUS MANUFACTURERS AND MAY BE USED IN PLACE OF THE LITHIUM CELL. UNDER NORMAL OPERATING CONDITIONS THE **ALKALINE** BATTERY MUST BE REPLACED EVERY **FOUR YEARS.** IF THE ELT IS ACTIVATED FOR AN UNKNOWN PERIOD OF TIME THE **BATTERY**, LITHIUM OR ALKALINE, **MUST BE REPLACED.** EQUIVALENT BATTERIES FROM OTHER MANUFACTURERS ARE ACCEPTABLE FOR USE IN THE RCPI UNIT.

Likewise, you can change the formula for the Remote Battery life in cell H40 by changing the month number in the formula as applicable.

	A	B	C	D	E	F	G	H	I	J
41	VAC PUMP		Tach/Hobbs	Date	Action Time		Due @ hrs	Due Date	Hrs Rem	Days Rem
42	Vac Pump		2884	10/31/2012	500 hrs		3384	N/A	-33.5	N/A
43	VAC Reg Filter		2964.5	10/31/2013	100 hrs/condition		3064.5	N/A	-353.00	N/A
44	VAC Pump Filter		3283.6	10/3/2016	500 hrs		3783.6	N/A	366.1	N/A
45	VAC Filter, Inline		2884	10/31/2012	500 hrs/condition		3384	N/A	-33.5	N/A

Enter the applicable Tach/Hobbs times in the cells in column **C** and the applicable dates in the cells in column **D**.

The formulas in the Column **I**'s cells are set for the applicable "Action Time" listed in the **E/F** cells.

	A	B	C	D	E	F	G	H	I	J
46	ELECTRICAL		Tach/Hobbs	Date	Action Time		Due @ hrs	Due Date	Hrs Rem	Days Rem
47	Alternator 1		3401.7	11/30/2017	500 hrs		3901.7	N/A	484.2	N/A
48	Alt 1 Coupling		3401.7	11/30/2017	1000 hrs		4401.7	N/A	984.2	N/A
49	Alternator 2		2840.6	5/18/2012	500 hrs		3340.6	N/A	-76.9	N/A
50	Battery 1, AGM			10/27/2016	5-8 yrs		N/A	10/27/2021	N/A	1399
51	Battery 2, AGM			10/27/2016	5-8 yrs		N/A	10/27/2021	N/A	1399
52	Battery 1, Wet			10/27/2016	2-3 Yrs		N/A	10/27/2018	N/A	303
53	Battery 2, Wet			10/27/2016	2-3 Yrs		N/A	10/27/2018	N/A	303

If you have two alternators, #1 is the engine driven alternator and #2 is the belt driven, conventional alternator. Enter the applicable numbers in Columns **C** and **D**. The "Due hours" are set by the formula in Column **G**, lines **47** through **49**. For example, line **47** due hours are in calculated in cell **G47**, based on the formula C47+500. The Hrs Remaing from the Due Hours, is based on the formula =G47-I2. **(I2** is the Tach/Hobbs that you entered manually in cell **I2**).

46	ELECTRICAL
47	Alternator 1
48	Alt 1 Coupling
49	Alternator 2

If you have one alternator, you can **delete** lines 48 and 49. To do this, right click on the line number you want to delete and choose Delete from the drop down menu.

Lines 50 through 53: These consider one battery aircraft and two battery aircraft. Wet and AGM (sealed) batteries are also considered. The formulas are set for 5 years (60 months) for AGM and 2 years (24 months) for wet. Alter the formulas in column **I** as necessary. For example, to change line **50**'s AGM battery due date to 8 years (96 months), change the formula in cell H50 to =EDATE(D50,**96**).

Delete the lines that do not apply to your aircraft.

Fly Safe and often, Jim