Day Topics were Covered

(out of 25 days)

Schedule:	Part 1					Part 2			Part 3 – Capstones					
Topic:	A. intro	B. wildfire	C. High-Level	D. Exam 1		E. Kimiwan	F.SparksLake		G. Ft.McMur.	H. Camp Fire	J. Quebec	K. Marshall		L. Synthesis
	A	B	C	D		E	F		G	H	J	K		L
Fire Basics														
fb0	Glossary	1												
fb1	History of fires & Indeginous	1			X									25
fb2	Wildfire Triangles		1		X									
fb3	Fire Ranks		1		X									
fb4	Forest types & layers		3		X									
fb5	Danger ratings worldwide		3		X									
fb6	Fuel characteristics		3		X									
fb7	Ignition & lightning						12,13							
fb8	Fuel moisture content		3		X									
fb9	Precursor / antecedent cond.													
fb10	FWI –overview		3		X									
fb11	FWI Moist.codes: FFMC, DMC, DC		3	10	X									
fb12	Variables: wx, slope													
fb13	Variables: sunlight, aspect													
fb14	FWI indices: BUI & ISI			8	X		13							
fb15	FWI indices: FWI & DSR													
fb16	Hot-dry-windy index													
fb17	FBP: intro						13							
fb18	FBP: fuel types		3		X		13							
fb19	FBP: ROS rate of spread						13							
fb20	FBP: HFI head fire intensity						13							
fb21	FBP: Significance													
fb22	Fire heat budget													
fb23	FIRMS													
fb24	GWIS			8	X		12							
fb25	FireWeather.ca			8	X		13				23			
fb26	Spring Dip			8	X		12							
fb27	CIFFC						12							
fb28	Wildland Urban Interface (WUI)								21					

		A	B	C	D		E	F		G	H	J	K		L
Meteorological Concepts															
mc01.1	**Map Analysis** – Intro		2		X										
mc01.2	Upper-air maps (a) & (b)		2,4		X		12								
mc01.3	Surface Maps			8,10	X		11								
mc01.4	Feature identification						11								
mc01.5	METAR decoding														
mc02.1	**Annotated Weather Maps**			8	X										
mc02.2	Upper-air map plot models			8	X		15								
mc03.1	**Satellite Image Interp.**–RAMBB						16								
mc03.2	Worldview (a), (b), (c)			6,8,10	X		12								
mc03.3	Multispectral RGB displays														
mc04.1	**Mid-Latitude Cyclones** – Intro		4		X		11								
mc04.2	Cyclolysis & ABL Drag		5		X										
mc04.3	Cyclogen.1 – Diverg.aloft		5		X										
mc04.4	Cyclogen.2 – Rossby waves		5	7	X										
mc04.5	Cyclogen.3 – Tilting/stacking			7	X										
mc04.6	Cyclogen.4 – Jet streaks			7	X										
mc04.7	Cyclogen.5 – Mountain lee			7,9	X		16								
mc04.8	Quasi-Geostrophic (QG) Theory			9	X										
mc04.9	Cyclogen.6 – Thermodyn.														
mc04.10	Ascent: Trenberthω & Q-vectors														
mc04.11	Cyclogen.7 – Big picture														
mc05.1	**Fronts** –Sfc.anal. & plot model						11								
mc05.2	Sfc.fronts-horiz.& vert.struct						13								
mc05.3	Why exist & Geostr.adjustment						13								
mc05.4	Mid-trop: occluded & TROWAL						14								
mc05.5	Upper-tropospheric fronts						15								
mc05.6	Frontogenesis						15								
mc05.7	Misc.–dry lines,sting,bentback														
mc05.8	Q-vectors at fronts(not covered)														
mc06.1	**Humidity** – Fundamentals			10	X										
mc06.2	**Temperature** variables, theta			9	X										
mc06.3	**Clouds** – Cu,St,prairie slope						17								
mc06.4	**Atm.Boundary Layer** & smoke disp							20			23				
mc06.5	Smoke dispersion-Gaussian plume						17				23				
mc06.6	HYSPLIT dispersion model						15				23				
mc07.1	**Soundings** – Mand.& sig. levels							18							
mc07.2	Plotting: tephigrams/skew-T						15	18							
mc07.3	Feature ID: ABL Zi,tropopause							18							
mc07.4	Stability – static,dyn.,turb.							18							
mc07.5	Convection –CAPE,CIN,indices							19							
mc07.6	Equiv. theta & wet-bulb theta							18							
mc07.7	PyroCb = Cb Flammagenitus							19							
mc08.1	**Weather Briefings** – Tips														
mc08.2	Example 1 – McLoughlin														
mc08.3	Example 2 – Bennett							19							
mc09.1	**NWP** – Fundamentals							20							
mc09.2	the NWP process							20							
mc09.3	COMET modules on NWP														
mc09.4	Ensemble & prob.fcsts,interpret							20							
mc09.5	Data assimilation														
mc09.6	Table of NWP models														25
mc10.1	**Coupled NWP-Fire Behavior Models**														
mc10.2	WRF-SFIRE														
mc10.3	xxx														
mc11.1	**Fire Wx Fcsting** – Tactical														25
mc11.2	Strategic														
mc11.3	Sub-seasonal & seasonal														25
mc12.1	Downslope windstorms									22					
mc12.2	Mountain waves											24			
mc13.1	Climate change vs. wildfires														25
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