## CSU - RAMS

## **Model Update and Modification Details**

This document contains detailed notes of changes made between model versions as development and deprecation were performed on the model by Stephen Saleeby and others at CSU starting in 2010. This is meant primarily as a reference for noting when particular changes take place in CSU-RAMS.

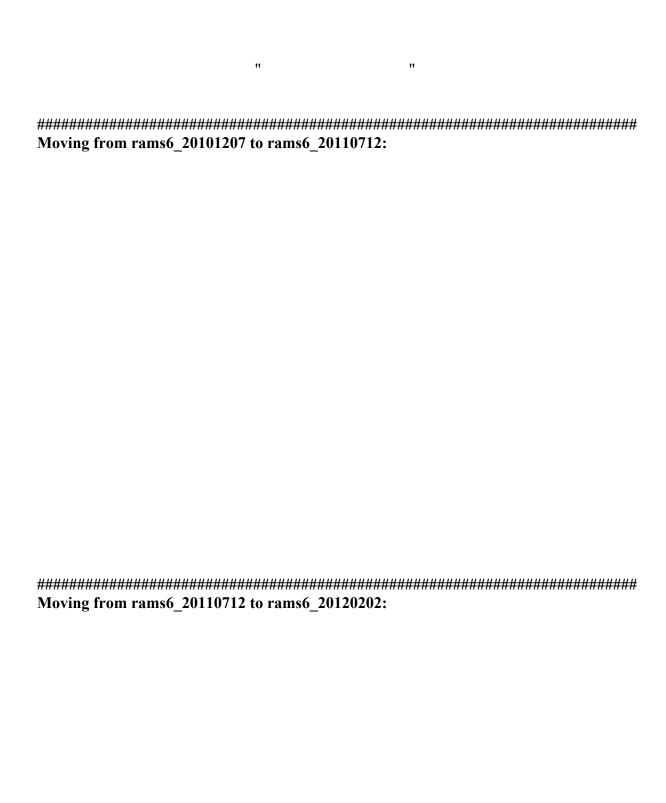
#### Prepared by:

Stephen Saleeby
Department of Atmospheric Science
Colorado State University

Last updated: 14 October, 2020

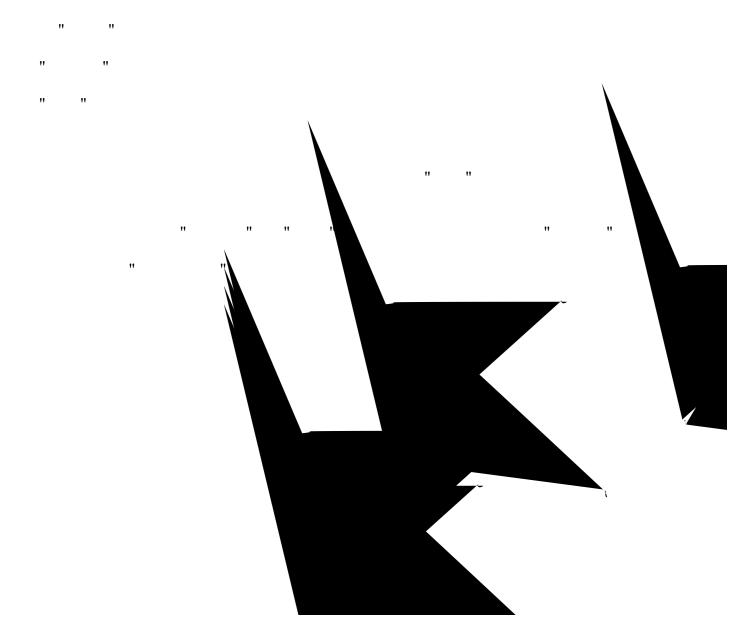
# DESCRIPTION OF MODIFICATIONS MADE TO RAMS BETWEEN VERSIONS VERSIONS ARE UPDATED WITH A DATE STAMP and/or VERSION NUMBER

"	"		"	"					
				########## rams6_201		<i>        </i>	!########	!##########	####
				"	"				
				########## to rams6_2		<del>                                     </del>	!##########	<i>.</i>	####
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#### Mov				########## to rams6_2		<del>/////////////////////////////////////</del>	<del>!########</del>	<i></i>	####
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Mods to Powers Laws and Sedimentation



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			"	"		
Other Modification	ons "					
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Moving from ra	ms6_20	130813 to	rams6_201.	30901:		
			"	"		
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Moving from ra	11180_20	130301 [0	ramso_201.	21002:		

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				############# s6_20131008:	<i>4444444444444444444444444444444444444</i>	#######################################
Moving II	om ramso_	20131003 (	o raiii	SU_2U131UU0.		
						#
	#					,,
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				s6_20131111:		

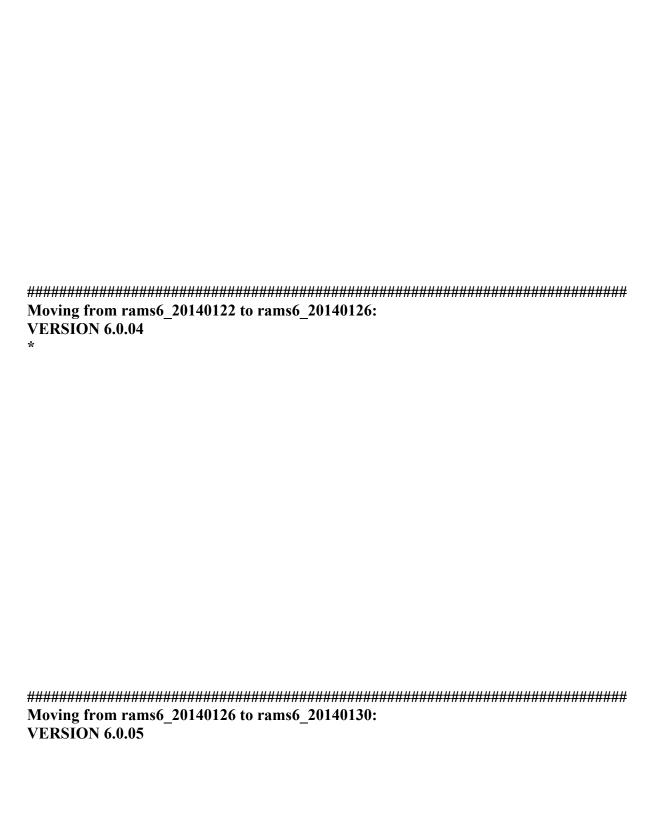
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For making the HISTORY initialization and nudging code functional:

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<b>VERSION 6.0.06</b>		
VERSION 6.0.07		
		#
######################################		<del>/////////////////////////////////////</del>

######################################
VERSION 6.1.02 *
VERSION 6.1.03

**VERSION 6.1.06** 

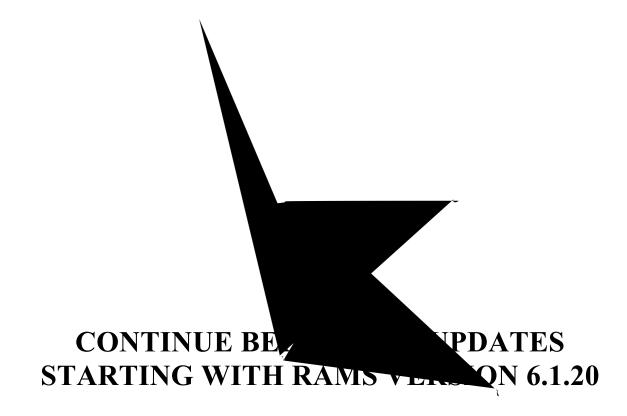
#### **VERSION 6.1.12 (HDF5 array swap in this version)**

VERSION 6.1.13 Summary:

**VERSION 6.1.17 – June 30, 2015** 

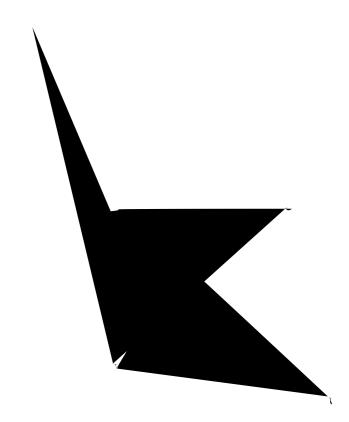
**VERSION 6.1.18 – Sep 28, 2015** 

**VERSION 6.1.19 – Mar 14, 2016** 

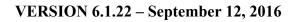


# MODEL UPDATES STARTING WITH VERSION 6.1.20 WITH ADDITION OF HUCM-SBM BIN MICROPHYSICS AND SIB CARBON-CYCLE LAND SURFACE MODEL

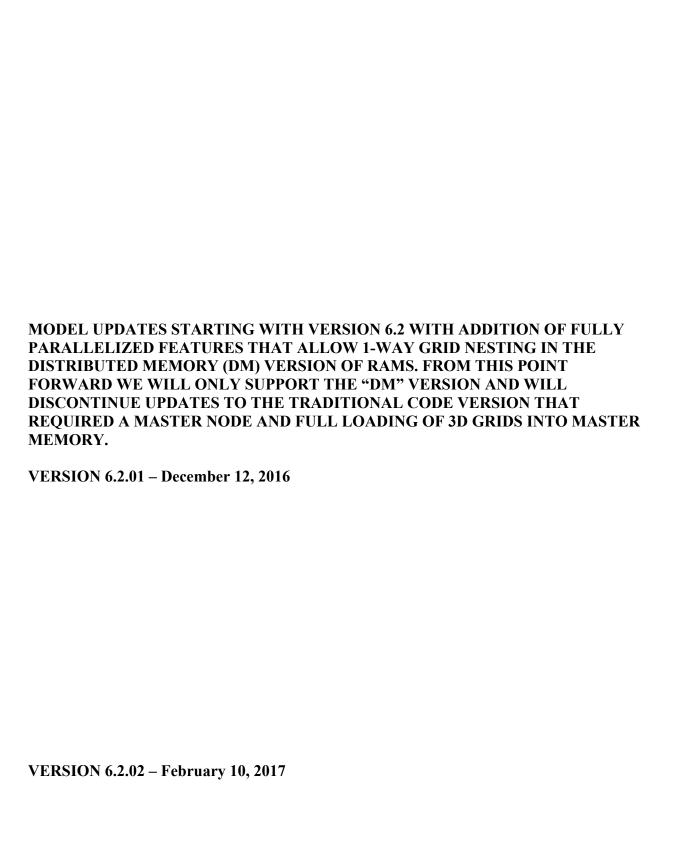
**VERSION 6.1.20 – July 13, 2016** 



**VERSION 6.1.21 – August 25, 2016** 

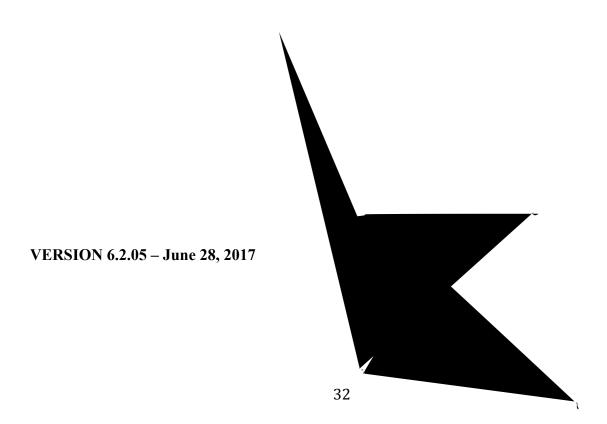


**VERSION 6.1.23 – November 11, 2016** 



**VERSION 6.2.03 – February 10, 2017** 

**VERSION 6.2.04 – April 11, 2017** 



**VERSION 6.2.06 – September 13, 2017** 

**VERSION 6.2.07 – November 6, 2017** 

**VERSION 6.2.08 – May 9, 2018** 

**VERSION 6.2.09 – Oct 12, 2018** 

**VERSION 6.2.10 – Mar 15, 2018** 

**VERSION 6.2.11 – Nov 9, 2019** 

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#### VERSION 6.2.12 – May 12, 2020 (SCM version stems from here)

Many of the changes below are made to accomodate the stand-alone, single-column model (SCM) version of RAMS microphysics, aerosols, and radation that stems from this version of RAMS. All future changes to these 3 parameterizations need to make their way into the SCM for consistency. Note that changes for the SCM version can be searched with "SaleebySCM".

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**VERSION 6.2.13 – July 24, 2020** 

**VERSION 6.2.14 – August 17, 2020** 

**VERSION 6.2.15 – October 6, 2020** 

**VERSION 6.2.16 – October 14, 2020** \*