

S1 Additional stratified examples

To complement the three illustrative cases shown in the main manuscript, this Supplement provides 200 additional qualitative examples from the independent 2019 evaluation set. The scenes were selected by stratified random sampling across the six cloud-cover–intensity regimes used in the regime-based evaluation. A fixed random seed of 123 was used, and no model-performance metric entered the selection. The supplementary sample was intentionally balanced across regimes to provide comparable qualitative coverage of both common and rare conditions. It should therefore not be interpreted as reproducing the natural frequency of the regimes in the evaluation dataset, nor should the relative number of examples be used to infer aggregate model performance.

Cloud-cover classes were defined from the observed cloudy-column fraction, $CF_{\text{col,obs}}$, as low ($CF_{\text{col,obs}} < 0.2$), medium ($0.2 \leq CF_{\text{col,obs}} \leq 0.6$), and high ($CF_{\text{col,obs}} > 0.6$). To avoid near-clear scenes with insufficient cloud signal for meaningful visual assessment, scenes with $CF_{\text{col,obs}} < 0.05$ were excluded before supplementary sampling; consequently, the low-cloud-cover class represented here spans $0.05 \leq CF_{\text{col,obs}} < 0.2$. This supplementary exclusion was applied only to the qualitative sample and does not alter the quantitative regime statistics reported in the main manuscript. Weak and strong scenes were separated using a 5 dBZ threshold on the scene maximum observed reflectivity, with weak scenes below this threshold and strong scenes at or above it.

The six regimes are distributed very unevenly in the regime-analysis dataset. Medium-strong and high-strong scenes account for most of the available samples, whereas low-weak and high-weak scenes are comparatively rare. The balanced supplementary allocation deliberately oversamples these rarer regimes so that their characteristic reconstruction behaviour can be inspected with the same level of qualitative detail as the dominant regimes. Quantitative overall and regime-specific performance should therefore be interpreted from the metrics reported in the main manuscript rather than from the frequency of examples in this Supplement.

Table S1. Distribution of the six cloud-cover–intensity regimes in the regime-analysis dataset and allocation of the 200 supplementary examples. The supplementary allocation is intentionally close to uniform and does not reproduce the prevalence of the regimes in the evaluation dataset.

Cloud-cover class	Intensity	Regime-analysis dataset		Supplementary sample	
		Number	Proportion	Number	Proportion
Low	Weak	315	1.8%	33	16.5%
Low	Strong	891	5.2%	33	16.5%
Medium	Weak	657	3.9%	34	17.0%
Medium	Strong	7171	42.0%	33	16.5%
High	Weak	252	1.5%	34	17.0%
High	Strong	7776	45.6%	33	16.5%

Each example shows the observed reflectivity curtain, the corresponding predicted curtain restricted to the CloudSat-observed support, and the cloud-top and cloud-base heights derived diagnostically from thresholded reflectivity using $\tau = -15$ dBZ. The examples are presented in the randomized order produced by the fixed seed and are intended as qualitative support for the interpretation of the quantitative diagnostics, not as a substitute for them.

Figure S1. Med CFcol, Weak; observed CFcol = 0.274; maximum observed reflectivity = 0.8 dBZ.

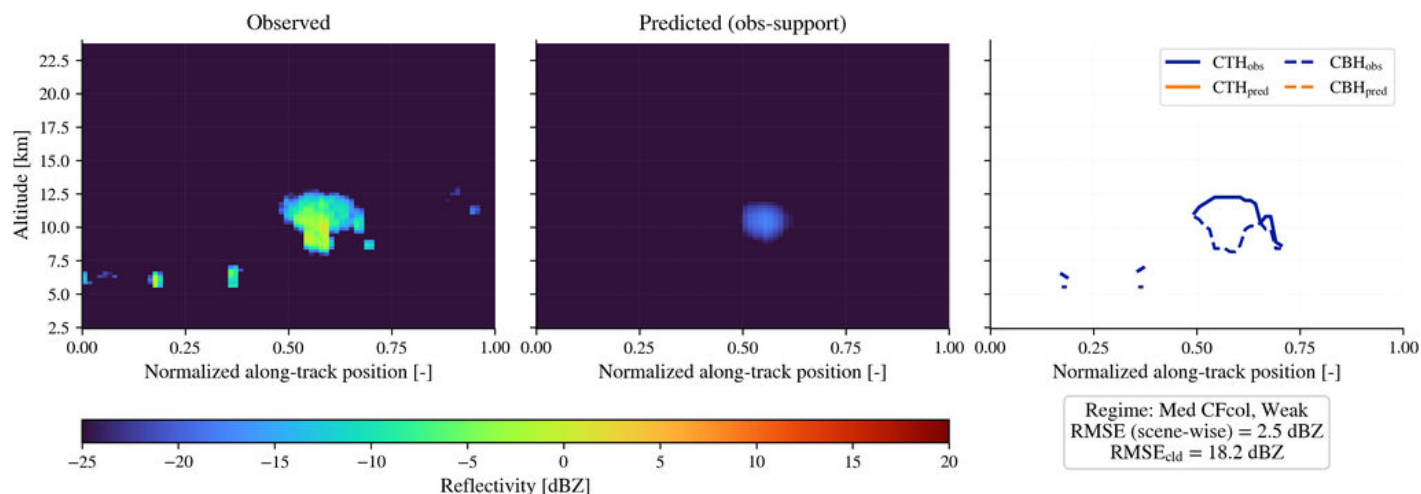


Figure S2. Low CFcol, Strong; observed CFcol = 0.168; maximum observed reflectivity = 15.5 dBZ.

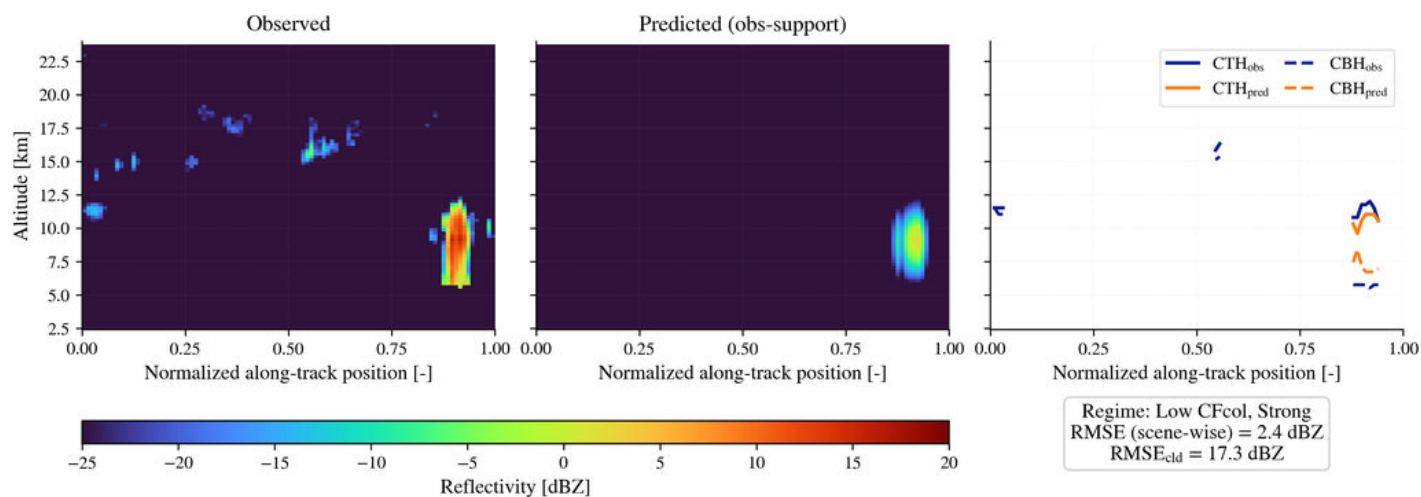


Figure S3. High CFcol, Weak; observed CFcol = 0.702; maximum observed reflectivity = 1.6 dBZ.

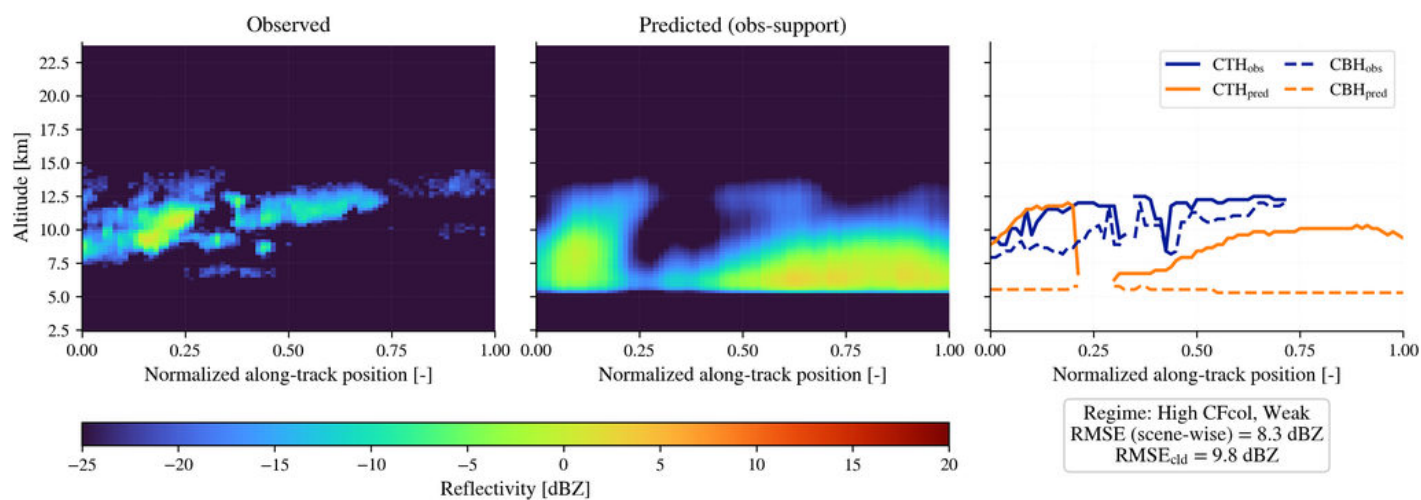


Figure S4. High CFcol, Strong; observed CFcol = 0.631; maximum observed reflectivity = 15.7 dBZ.

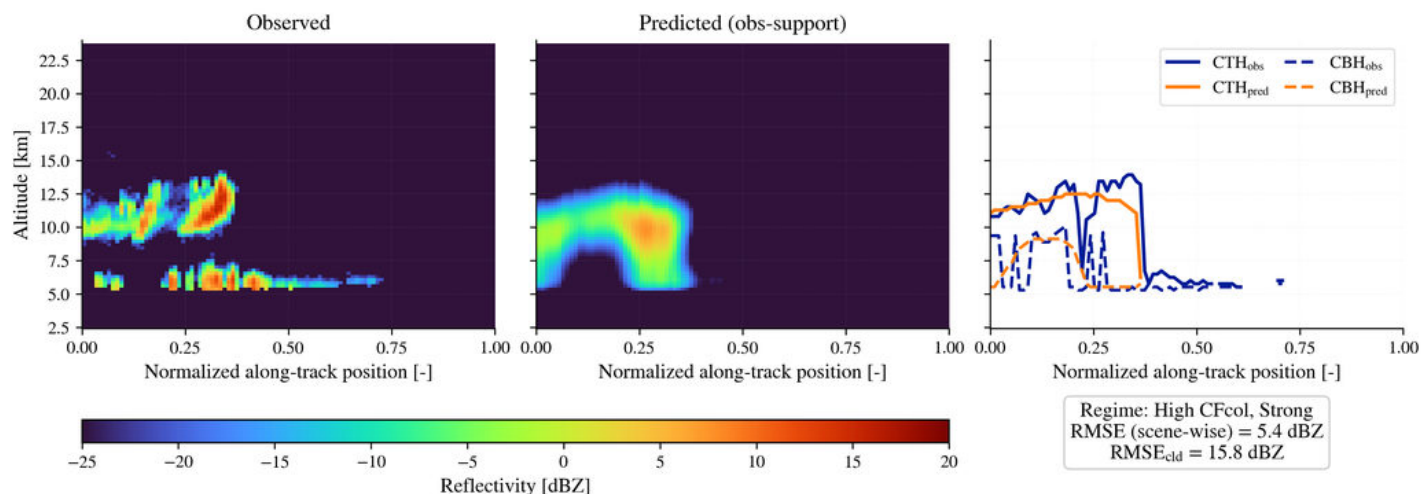


Figure S5. Med CFcol, Strong; observed CFcol = 0.312; maximum observed reflectivity = 13.9 dBZ.

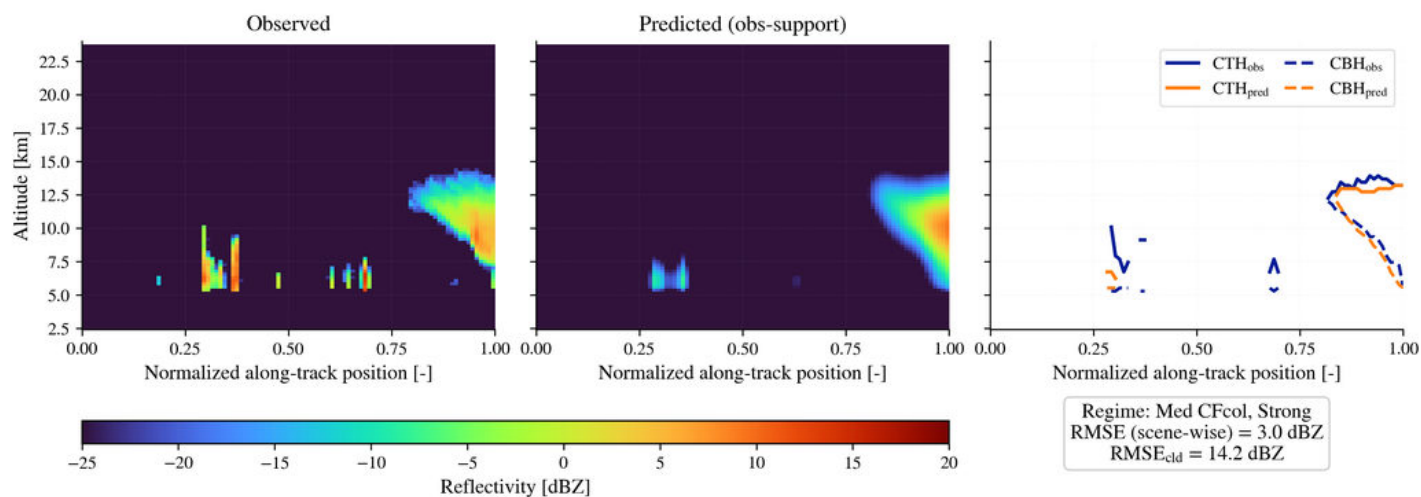


Figure S6. Med CFcol, Weak; observed CFcol = 0.372; maximum observed reflectivity = -0.5 dBZ.

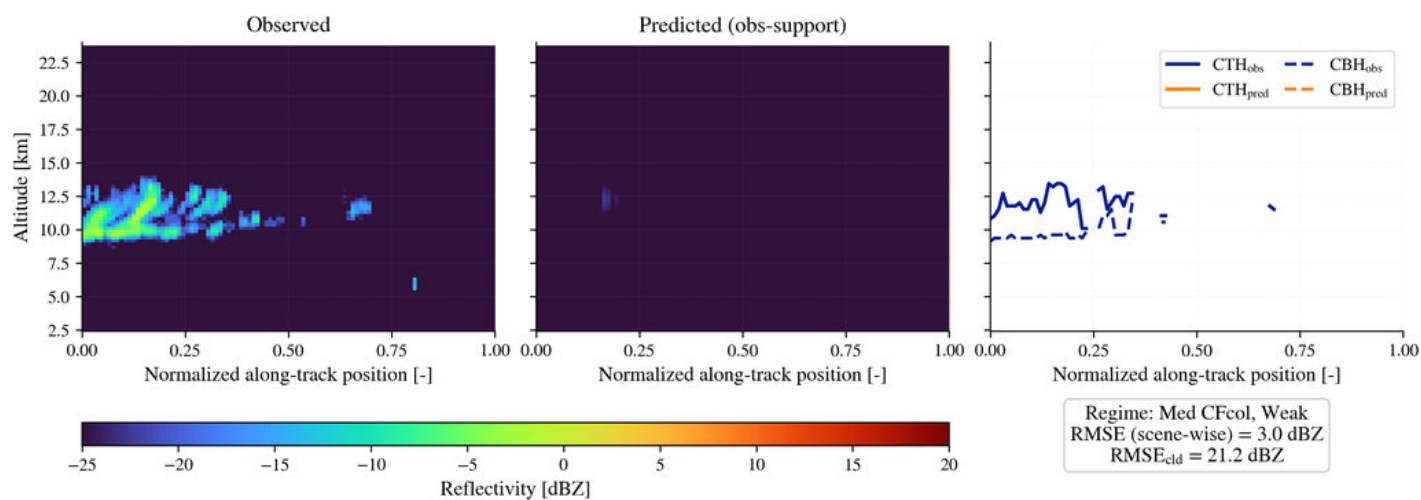


Figure S7. Med CFcol, Strong; observed CFcol = 0.350; maximum observed reflectivity = 17.8 dBZ.

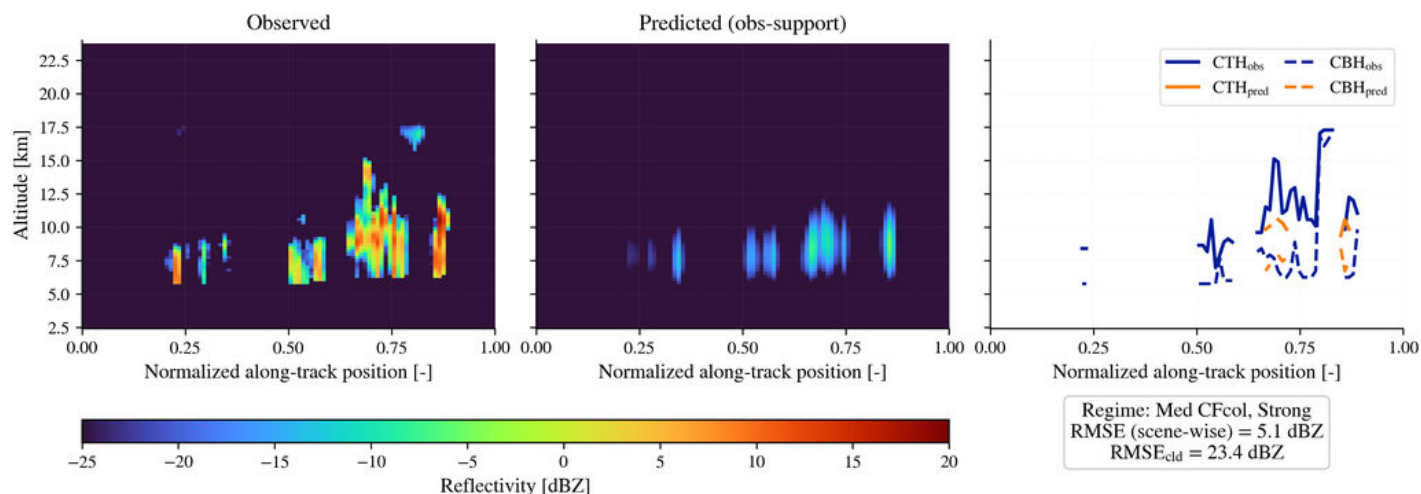


Figure S8. Low CFcol, Strong; observed CFcol = 0.192; maximum observed reflectivity = 16.0 dBZ.

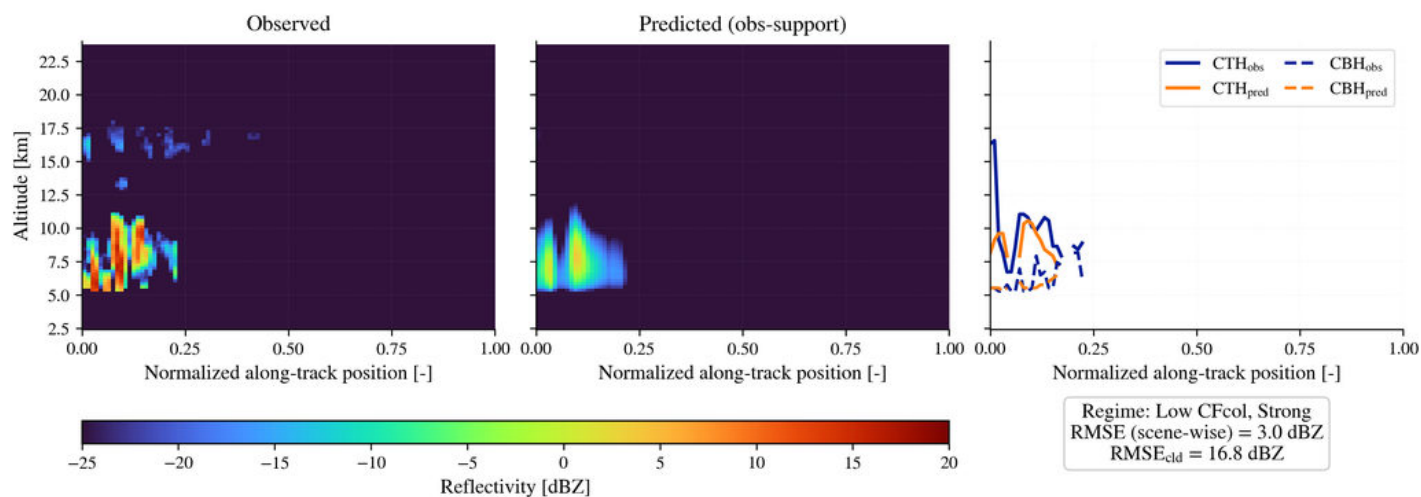


Figure S9. Med CFcol, Weak; observed CFcol = 0.504; maximum observed reflectivity = 3.7 dBZ.

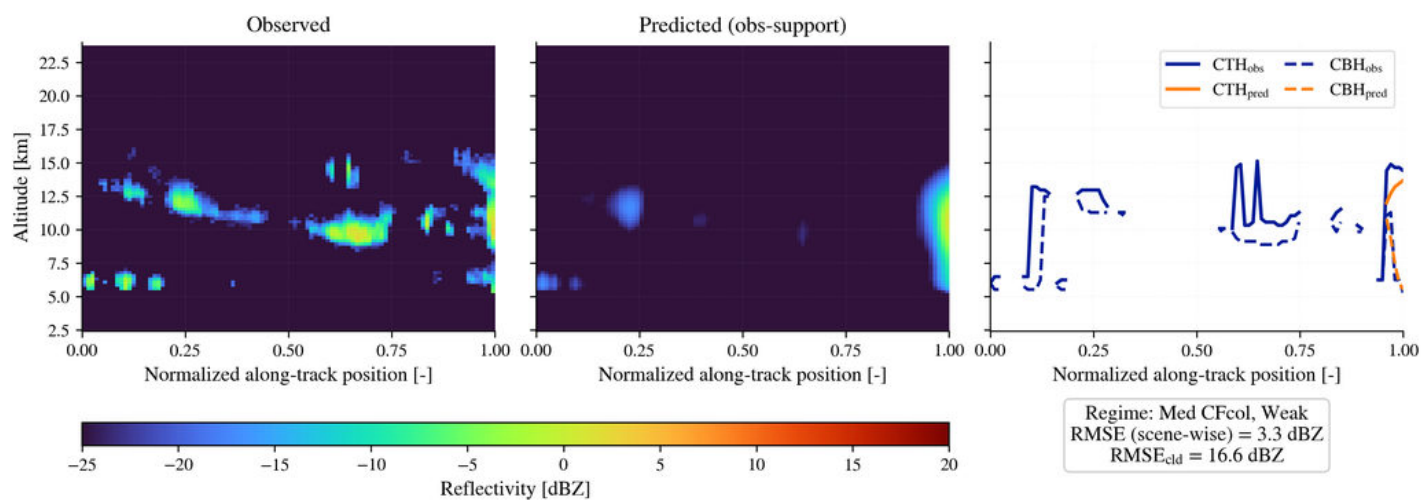


Figure S10. Med CFcol, Weak; observed CFcol = 0.365; maximum observed reflectivity = 2.6 dBZ.

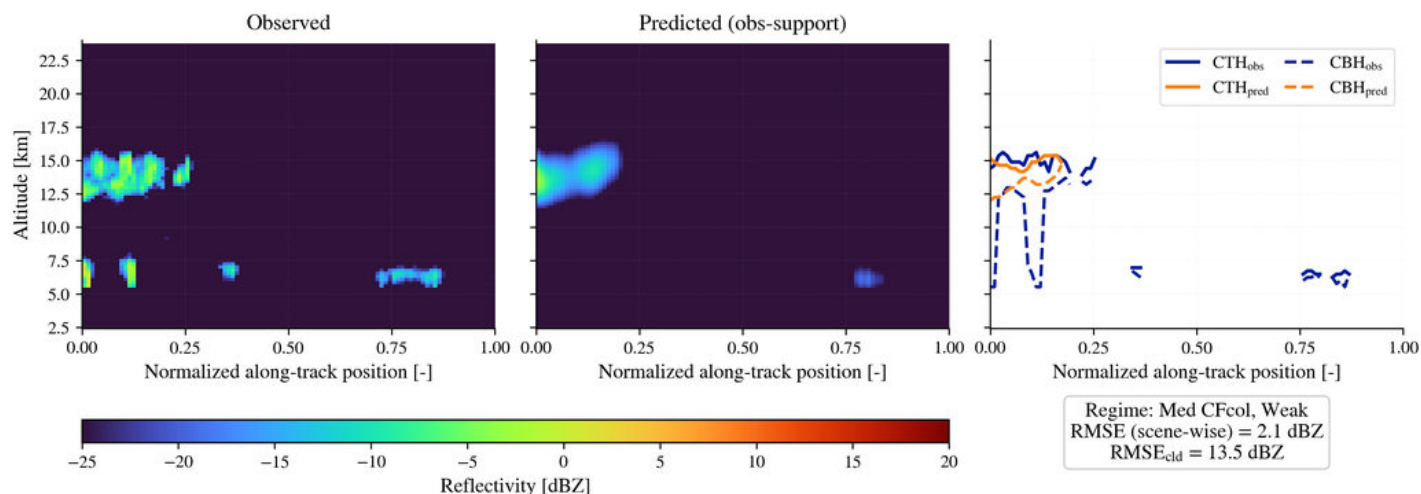


Figure S11. High CFcol, Weak; observed CFcol = 0.745; maximum observed reflectivity = 3.6 dBZ.

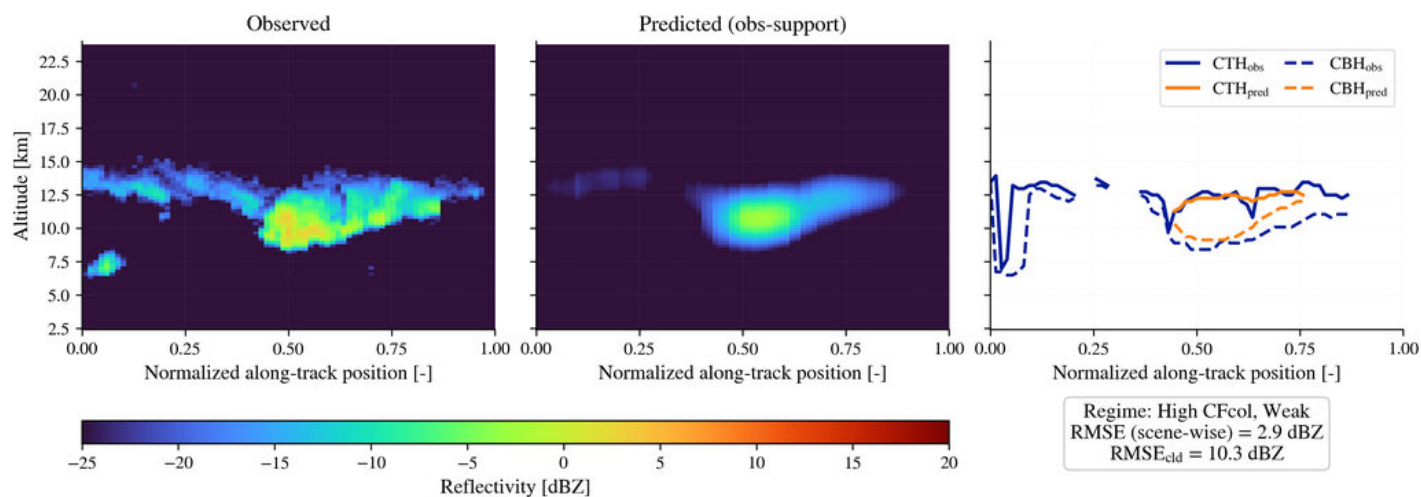


Figure S12. Med CFcol, Strong; observed CFcol = 0.347; maximum observed reflectivity = 18.6 dBZ.

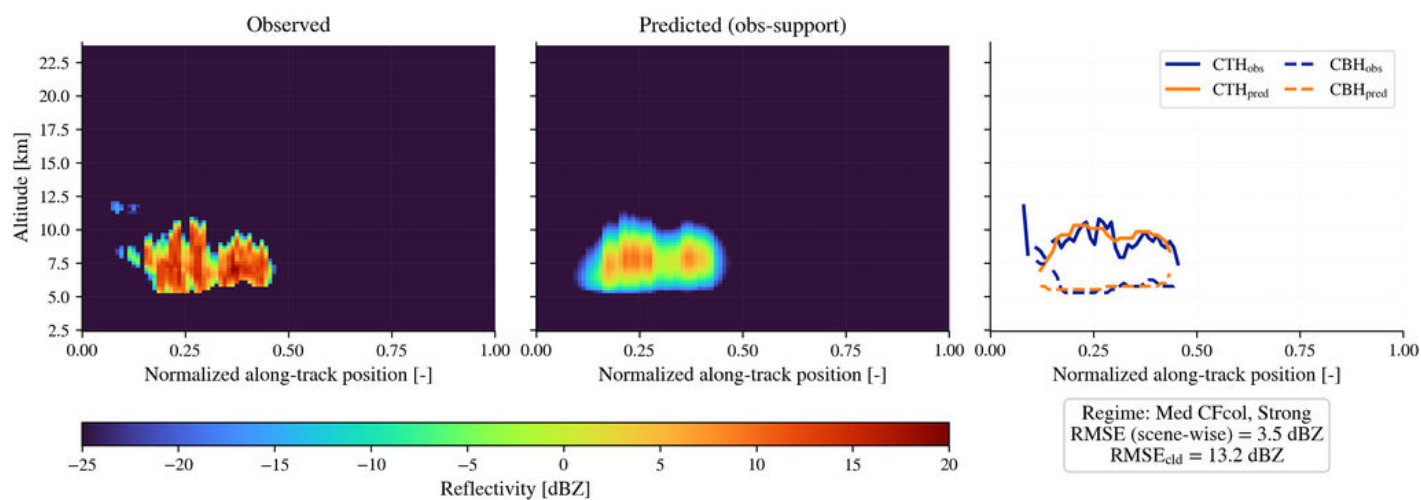


Figure S13. Med CFcol, Weak; observed CFcol = 0.322; maximum observed reflectivity = 2.7 dBZ.

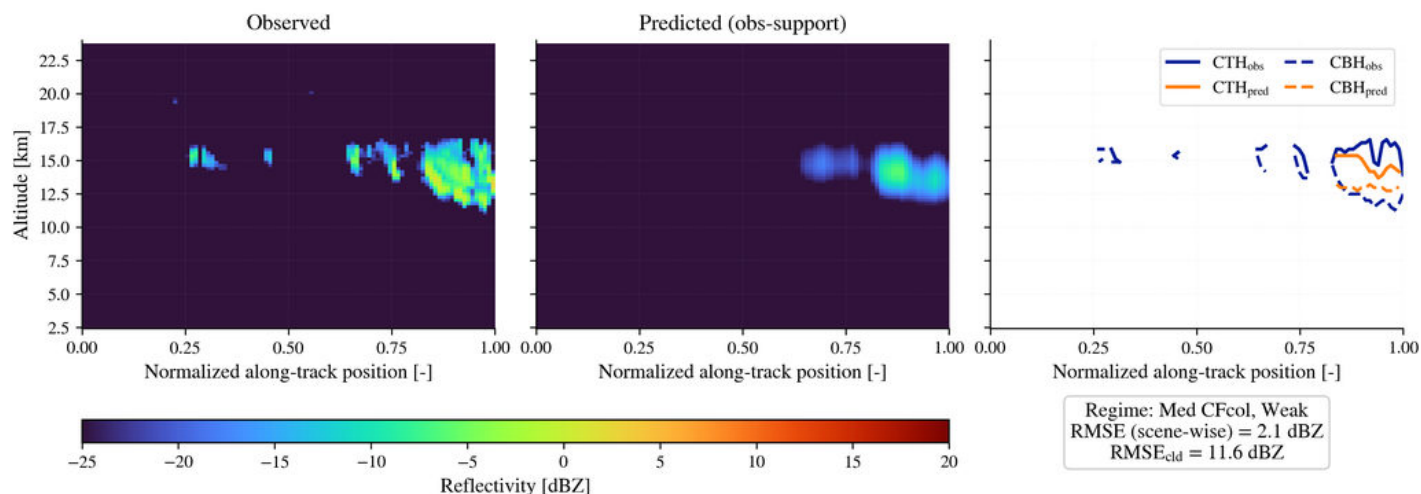


Figure S14. Low CFcol, Weak; observed CFcol = 0.145; maximum observed reflectivity = -2.9 dBZ.

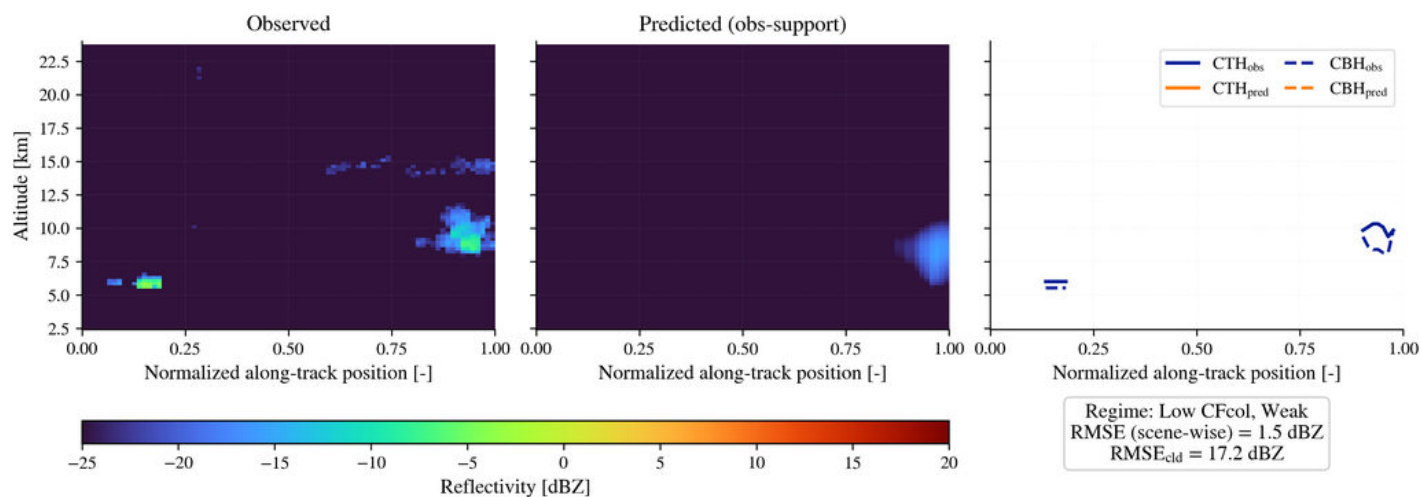


Figure S15. Low CFcol, Strong; observed CFcol = 0.161; maximum observed reflectivity = 14.6 dBZ.

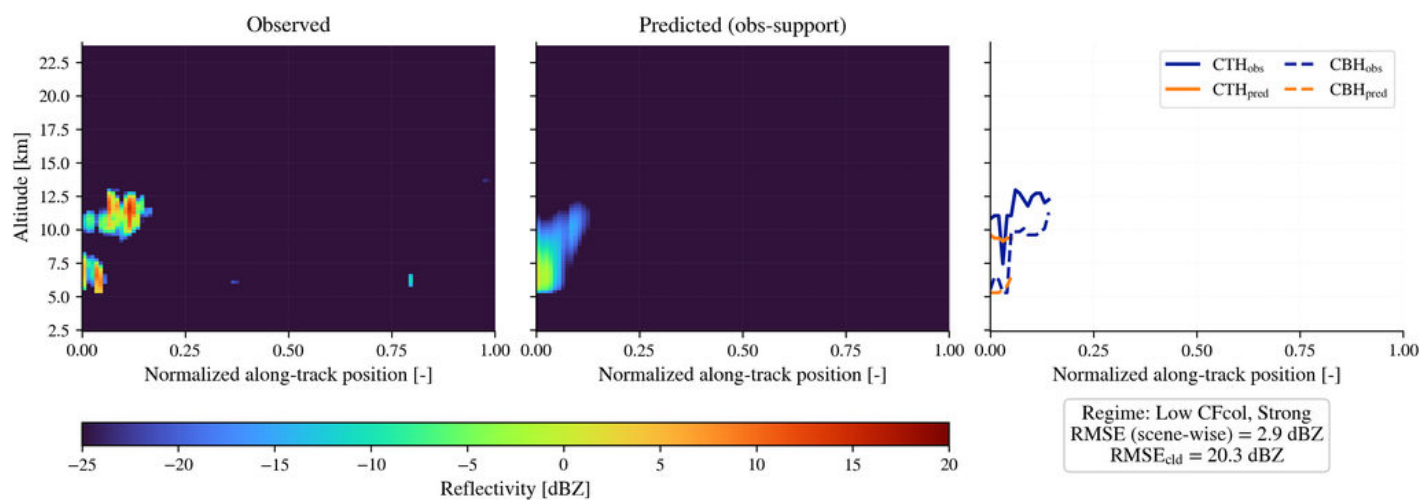


Figure S16. High CFcol, Strong; observed CFcol = 0.953; maximum observed reflectivity = 17.3 dBZ.

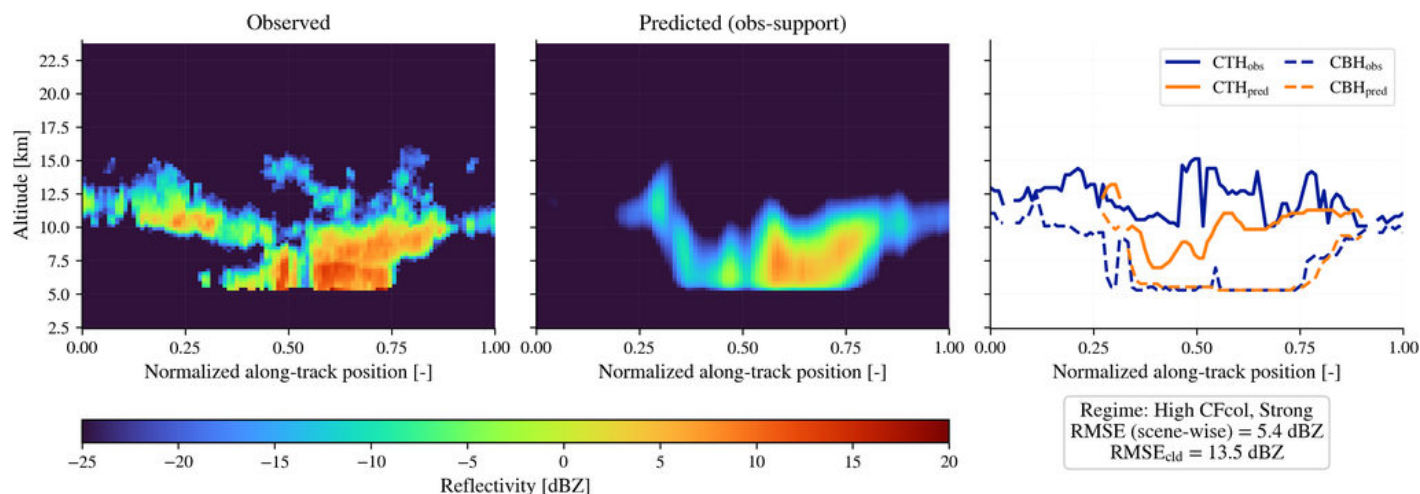


Figure S17. Low CFcol, Weak; observed CFcol = 0.086; maximum observed reflectivity = 2.6 dBZ.

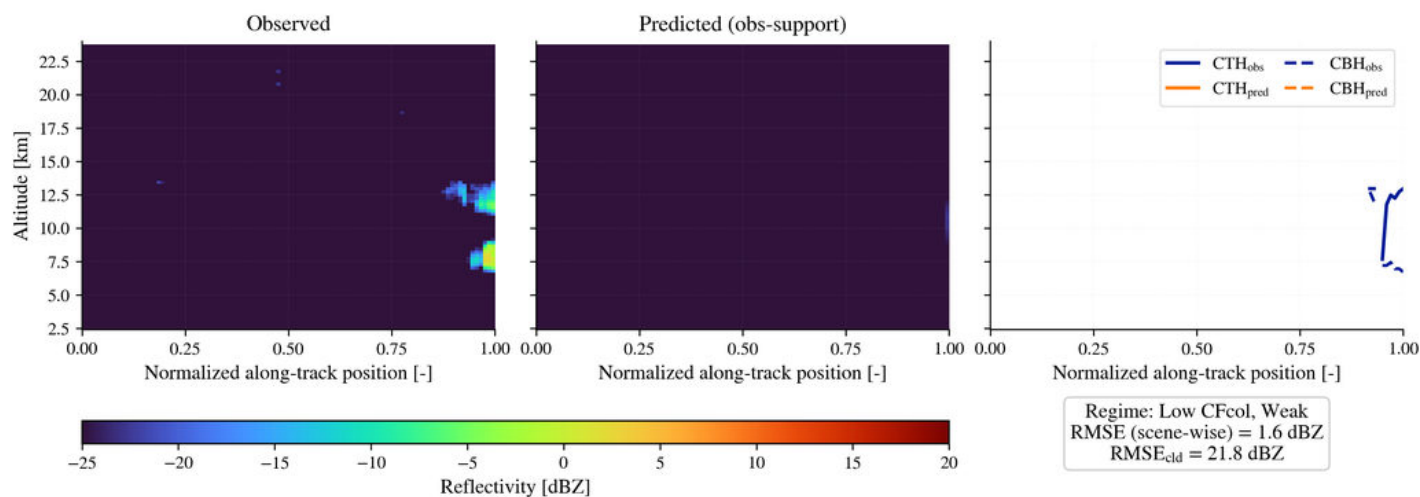


Figure S18. Med CFcol, Weak; observed CFcol = 0.582; maximum observed reflectivity = 4.6 dBZ.

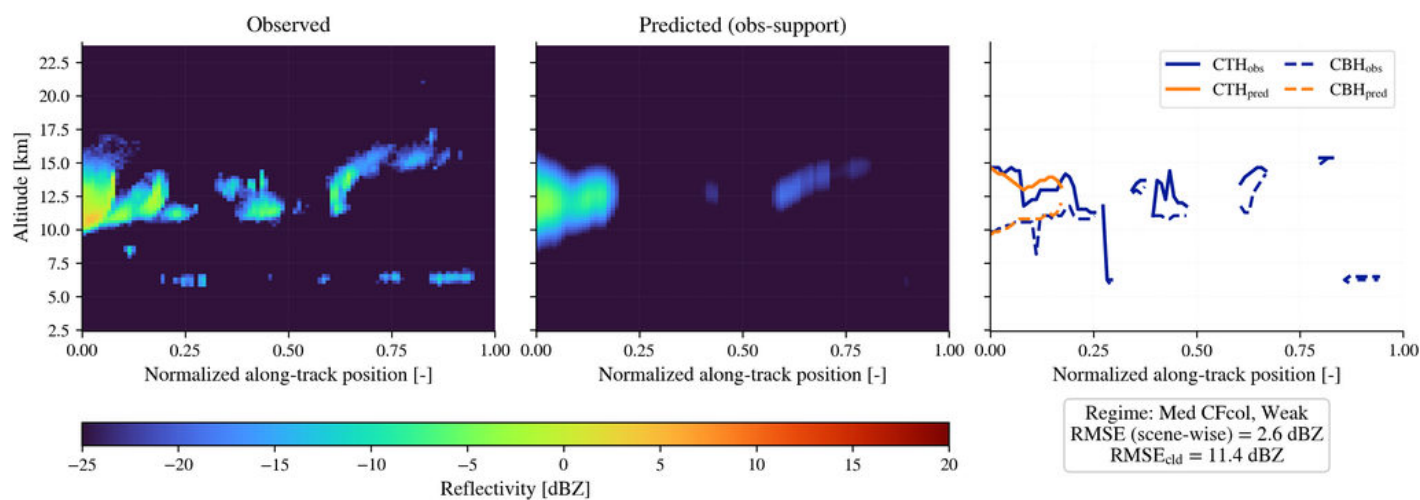


Figure S19. Low CFcol, Strong; observed CFcol = 0.120; maximum observed reflectivity = 17.5 dBZ.

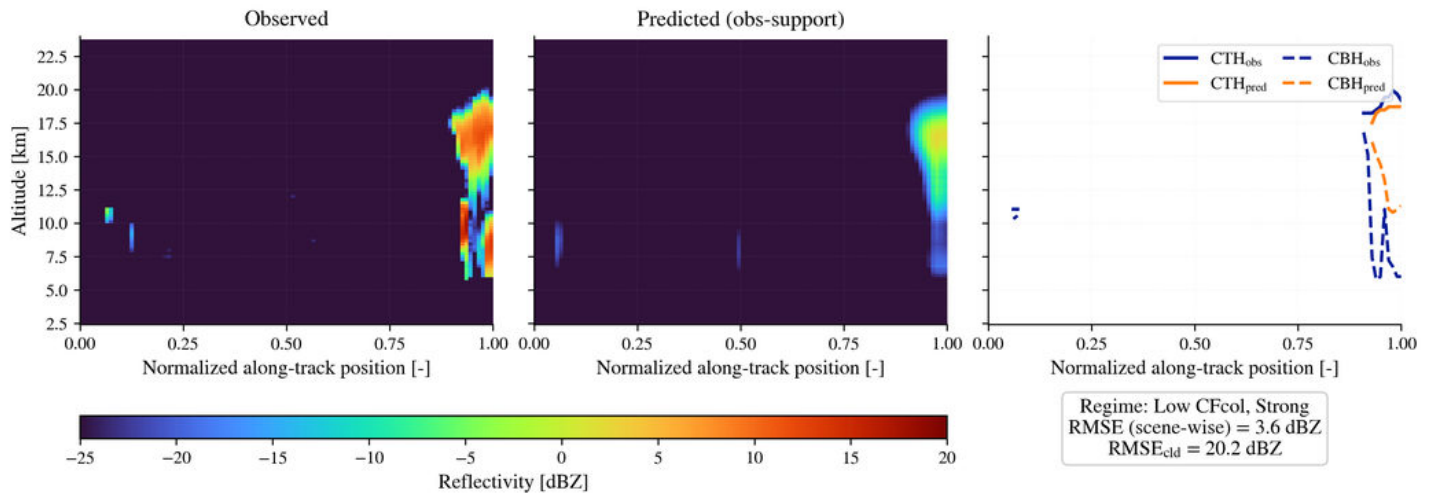


Figure S20. Med CFcol, Strong; observed CFcol = 0.480; maximum observed reflectivity = 17.1 dBZ.

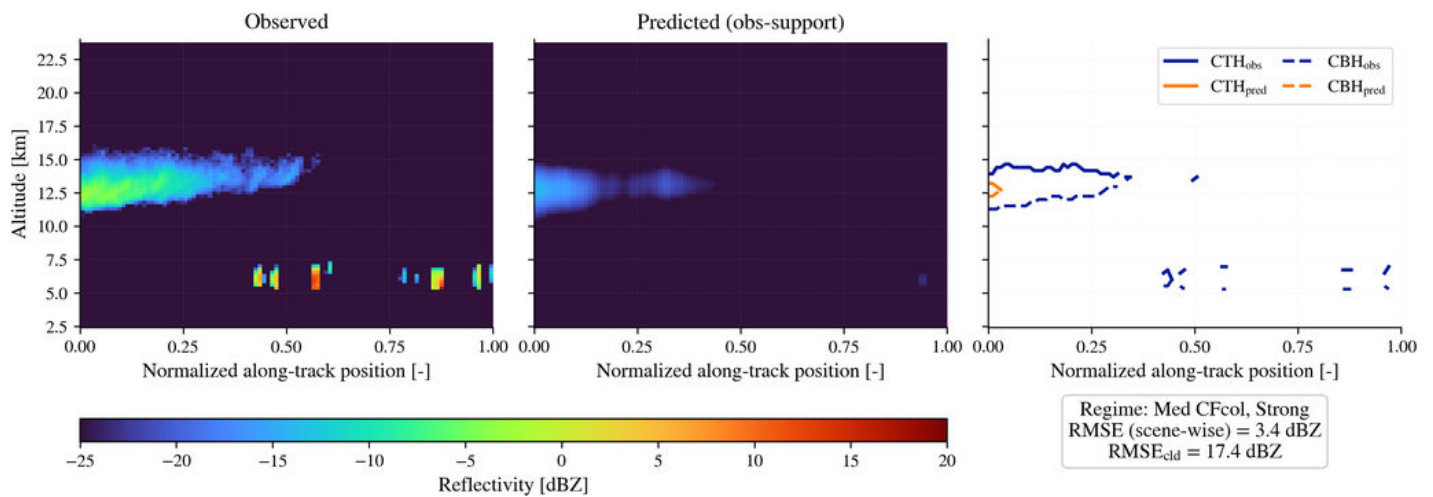


Figure S21. High CFcol, Weak; observed CFcol = 1.000; maximum observed reflectivity = 2.1 dBZ.

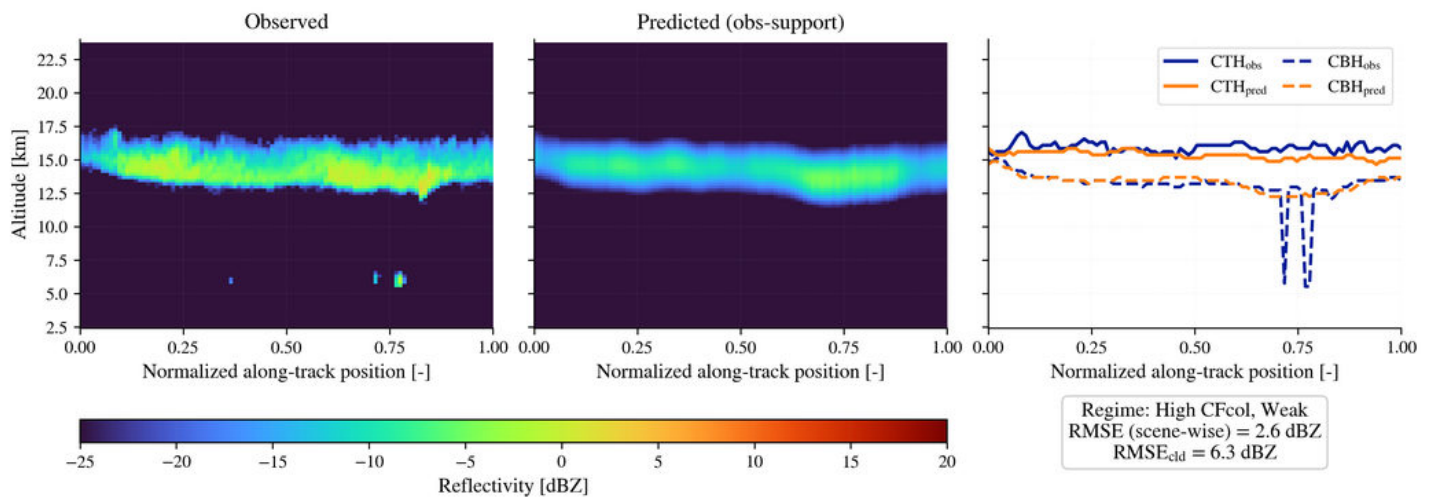


Figure S22. High CFcol, Strong; observed CFcol = 0.824; maximum observed reflectivity = 15.7 dBZ.

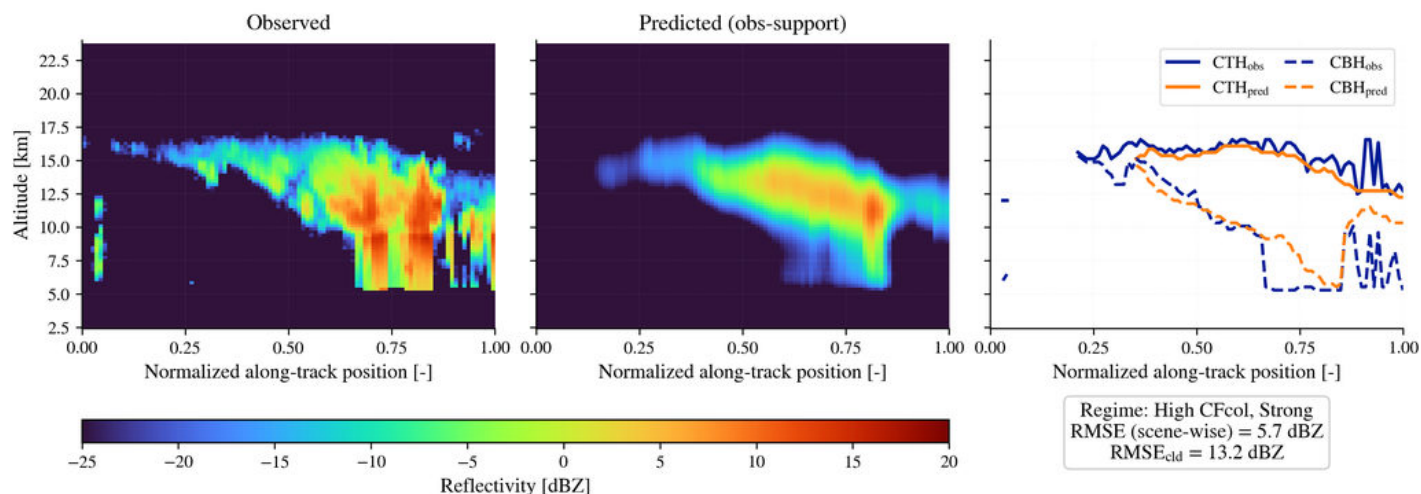


Figure S23. High CFcol, Strong; observed CFcol = 0.684; maximum observed reflectivity = 19.8 dBZ.

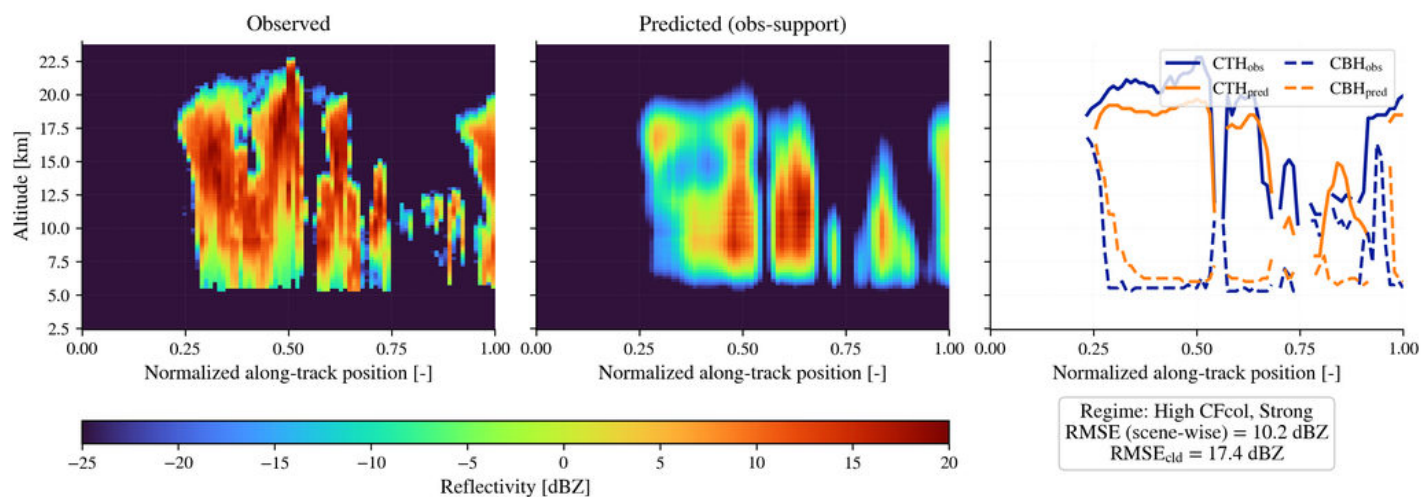


Figure S24. Med CFcol, Weak; observed CFcol = 0.470; maximum observed reflectivity = 2.1 dBZ.

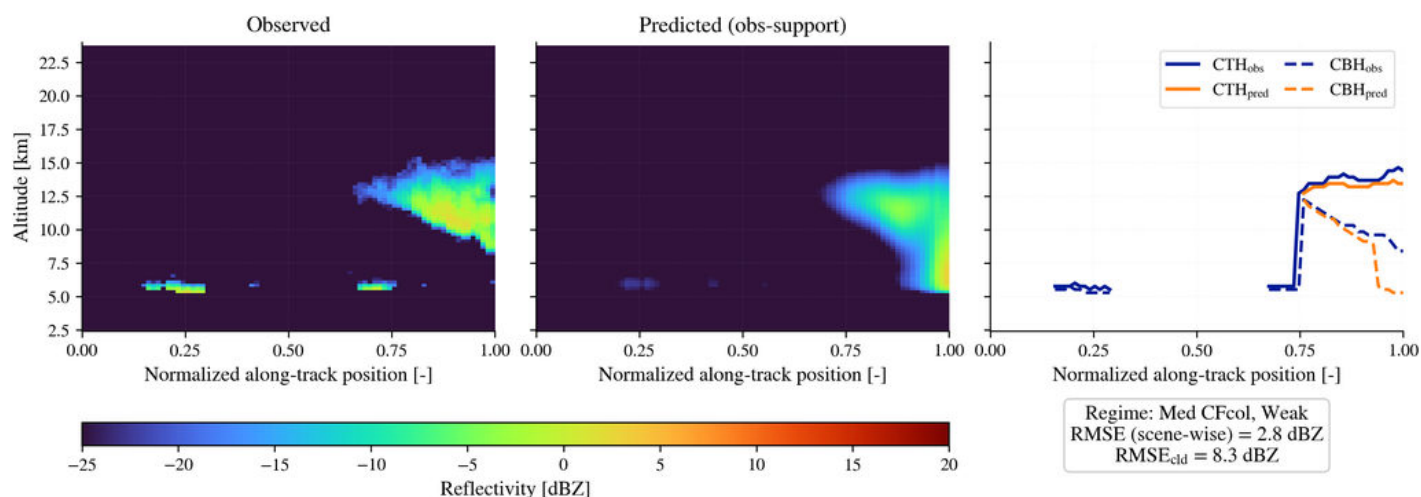


Figure S25. Low CFcol, Weak; observed CFcol = 0.195; maximum observed reflectivity = 4.1 dBZ.

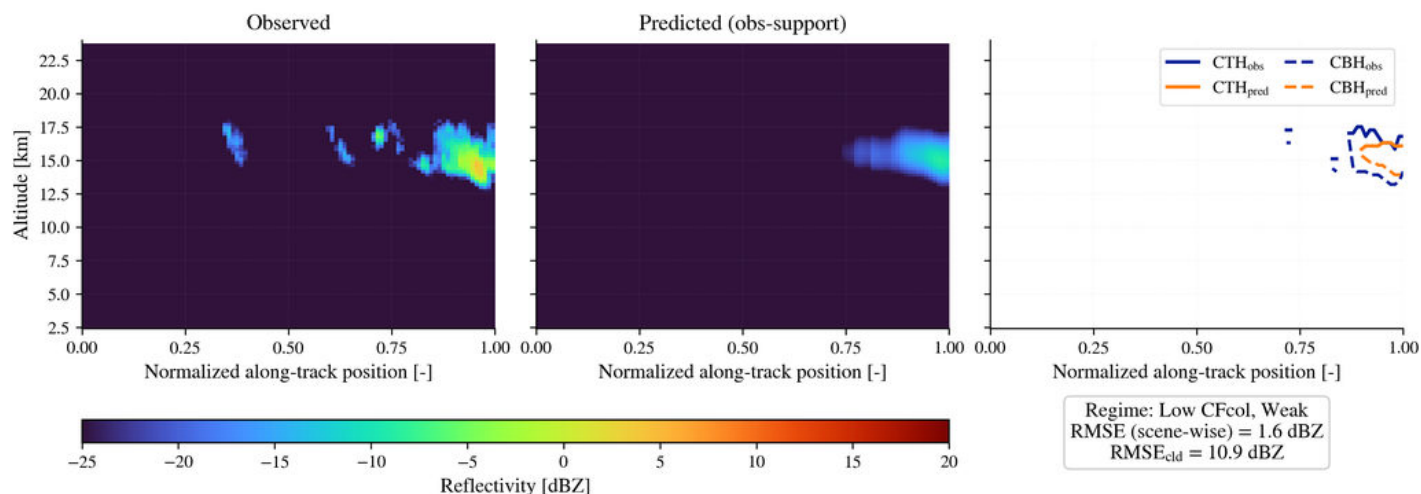


Figure S26. Med CFcol, Strong; observed CFcol = 0.293; maximum observed reflectivity = 10.2 dBZ.

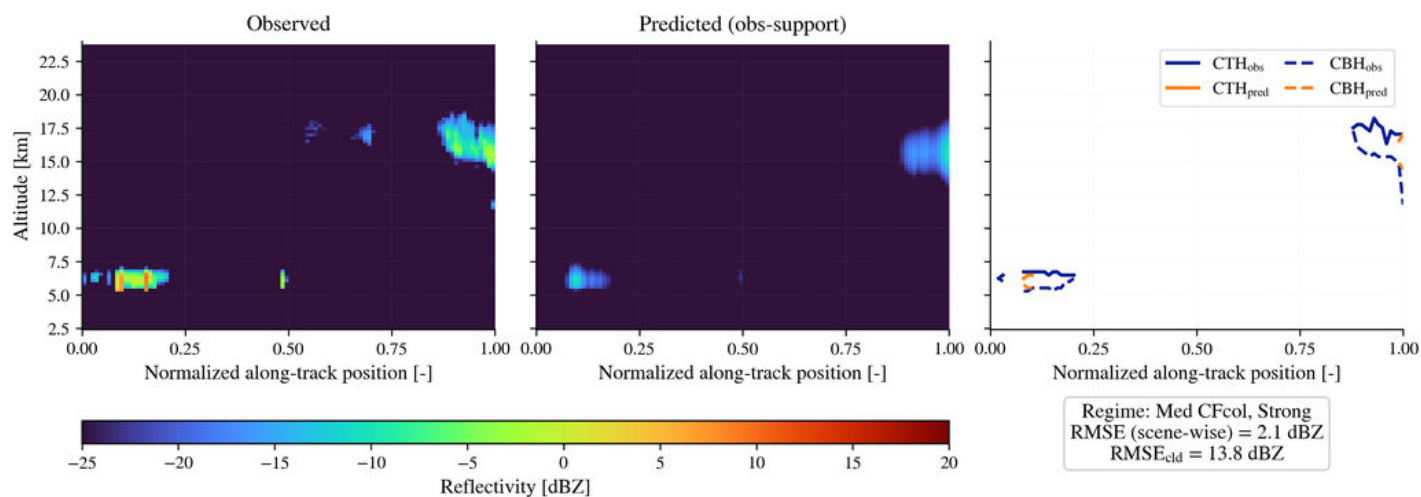


Figure S27. Low CFcol, Strong; observed CFcol = 0.169; maximum observed reflectivity = 18.4 dBZ.

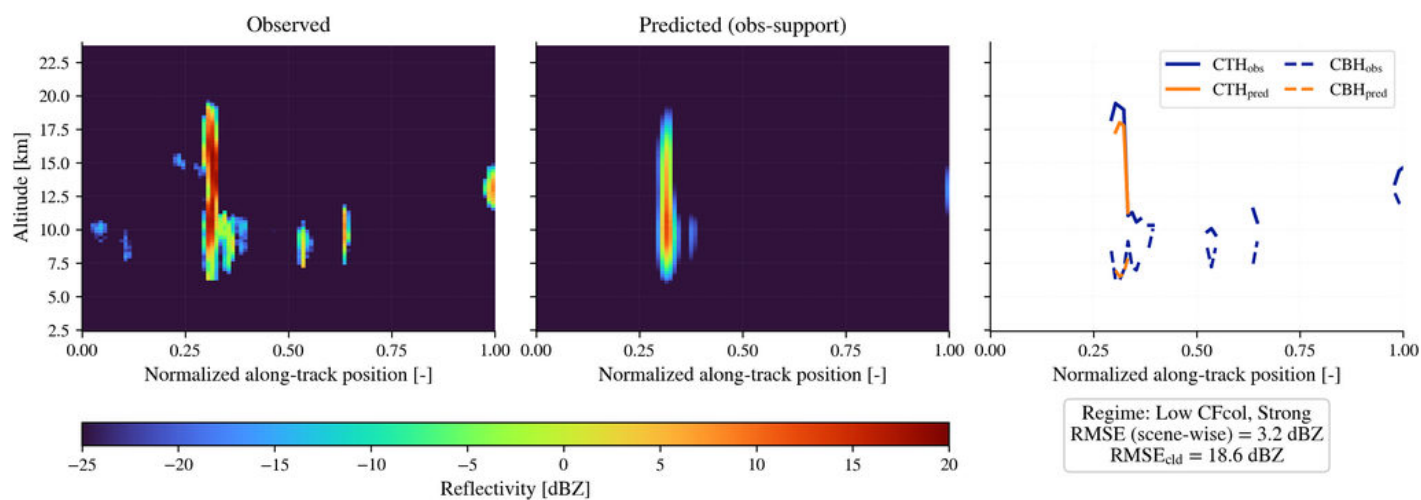


Figure S28. Med CFcol, Strong; observed CFcol = 0.474; maximum observed reflectivity = 10.1 dBZ.

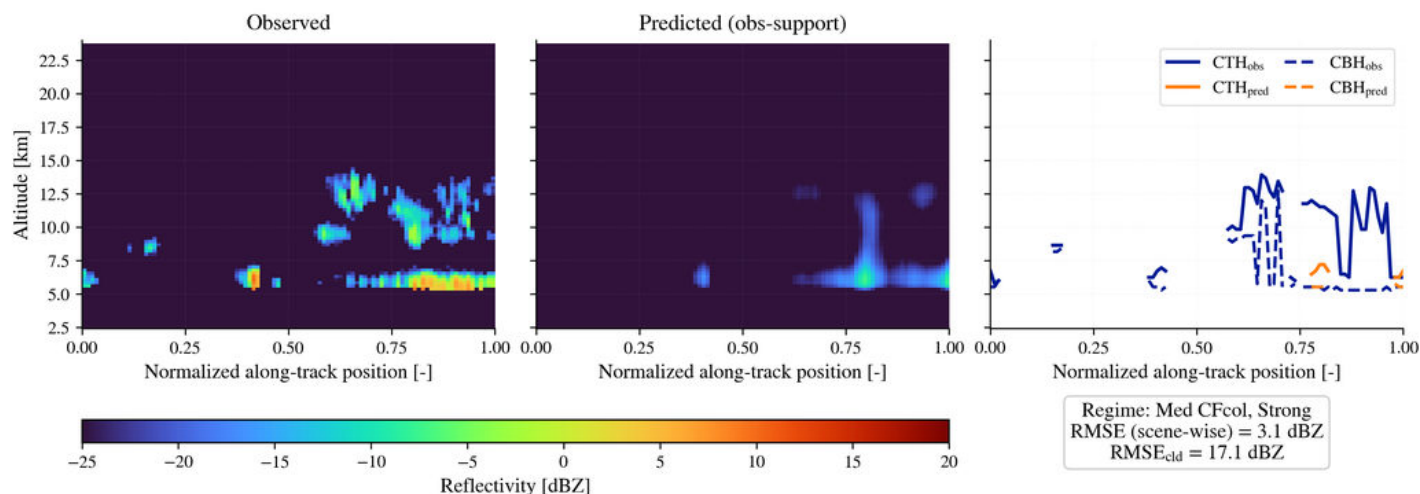


Figure S29. Low CFcol, Weak; observed CFcol = 0.130; maximum observed reflectivity = -5.0 dBZ.

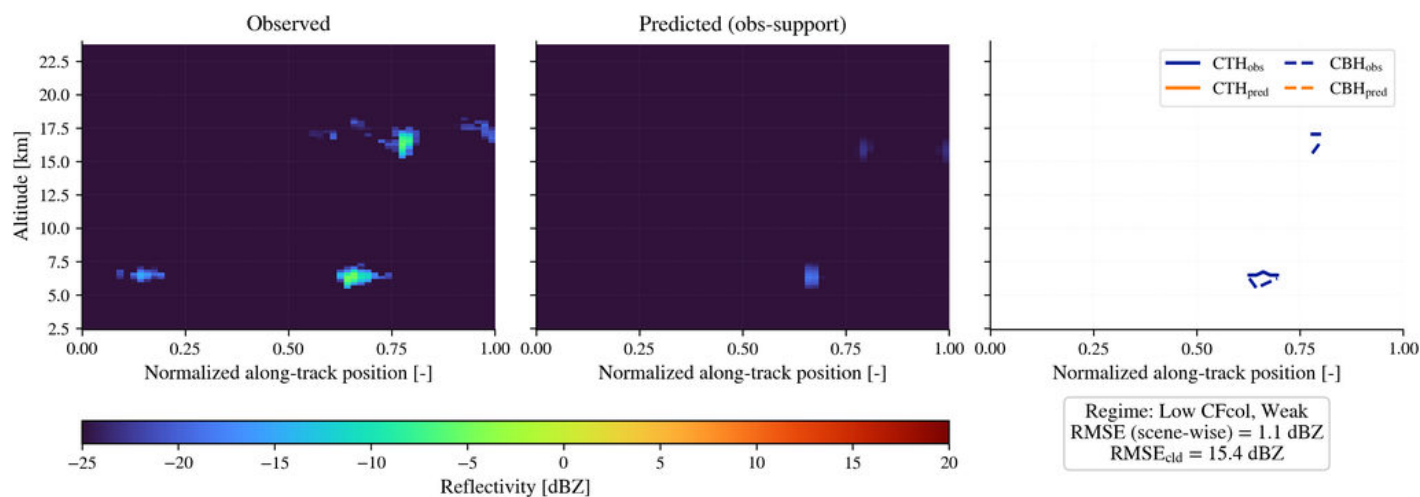


Figure S30. Low CFcol, Strong; observed CFcol = 0.117; maximum observed reflectivity = 8.2 dBZ.

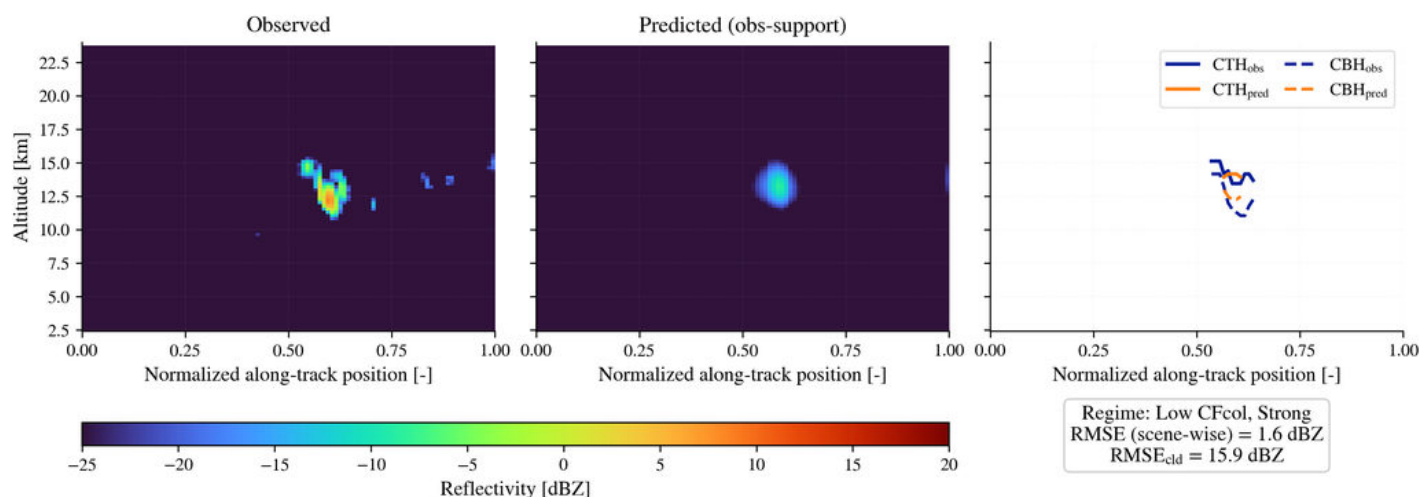


Figure S31. Med CFcol, Weak; observed CFcol = 0.275; maximum observed reflectivity = -3.1 dBZ.

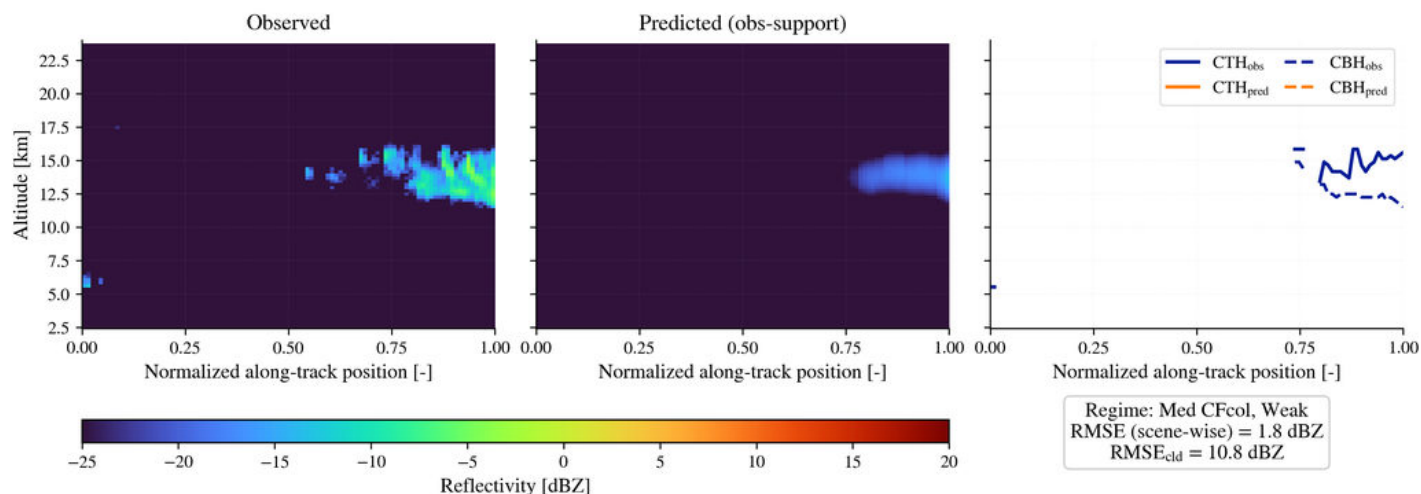


Figure S32. Low CFcol, Weak; observed CFcol = 0.086; maximum observed reflectivity = 0.4 dBZ.

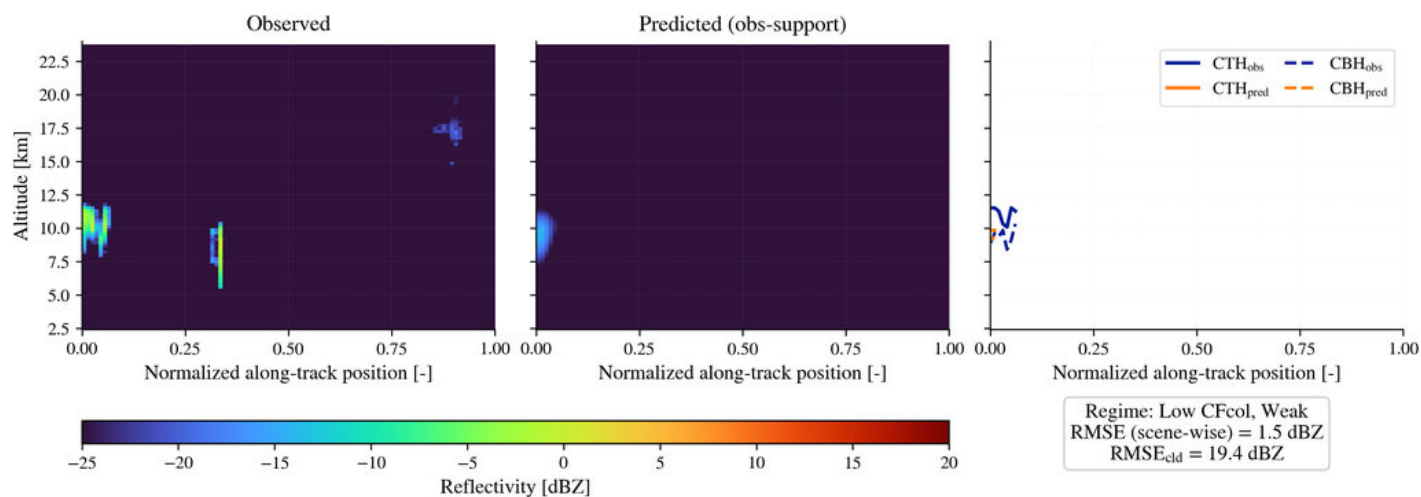


Figure S33. High CFcol, Weak; observed CFcol = 0.786; maximum observed reflectivity = 4.9 dBZ.

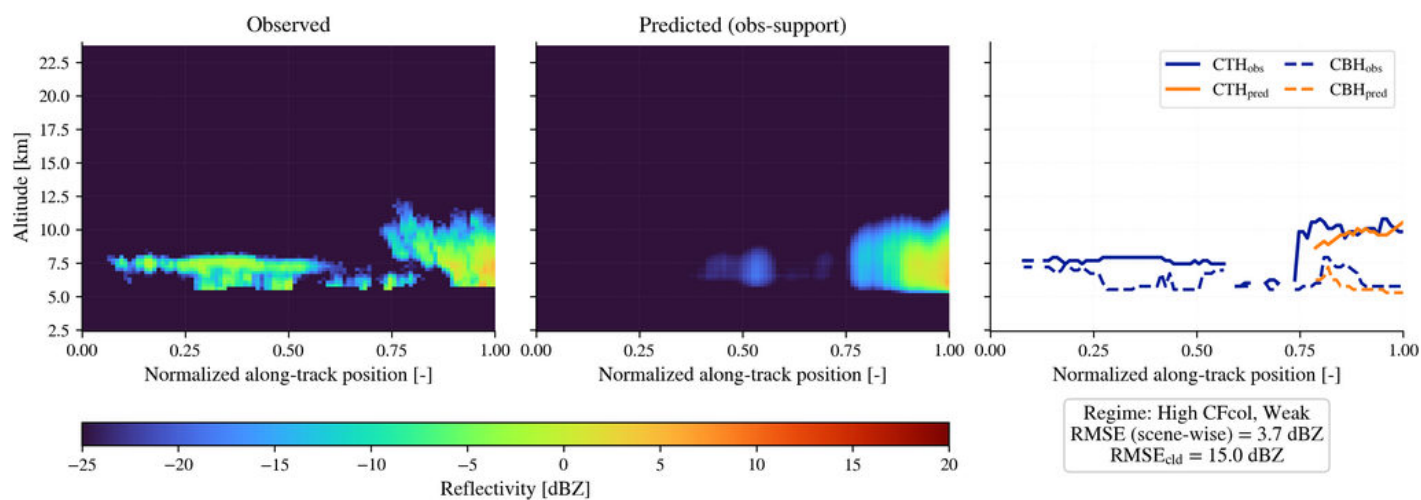


Figure S34. Med CFcol, Strong; observed CFcol = 0.555; maximum observed reflectivity = 17.9 dBZ.

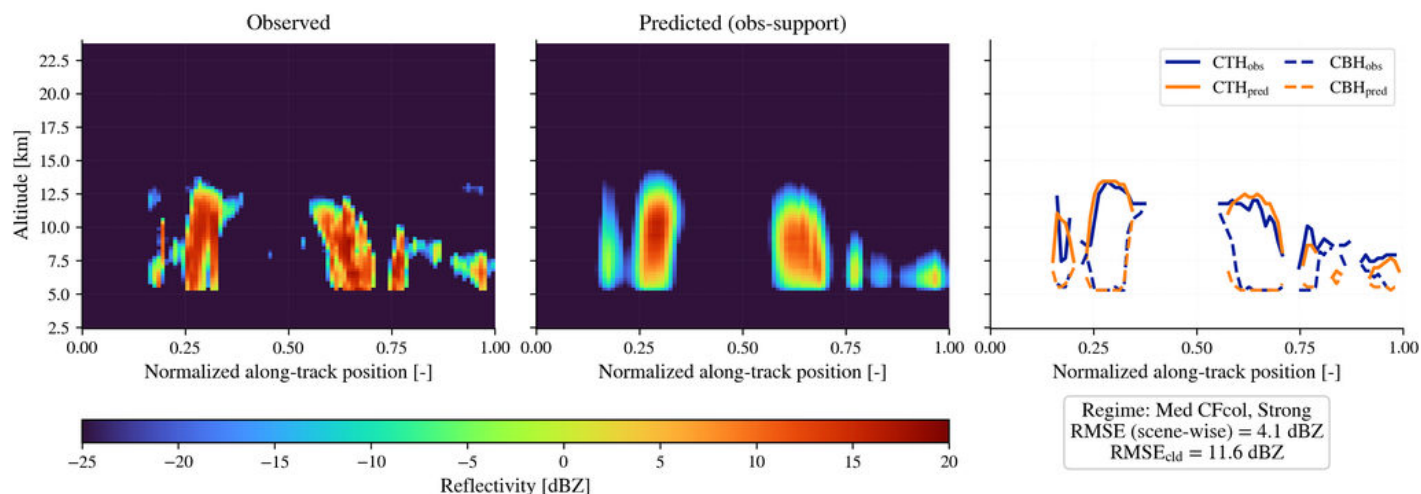


Figure S35. High CFcol, Weak; observed CFcol = 0.841; maximum observed reflectivity = -0.8 dBZ.

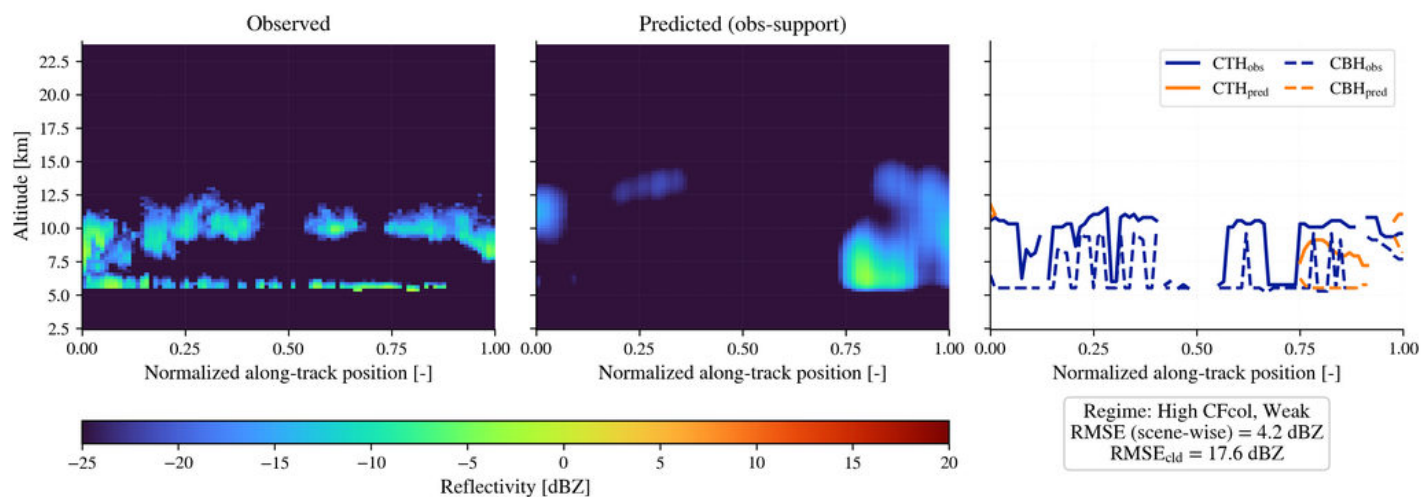


Figure S36. Low CFcol, Weak; observed CFcol = 0.149; maximum observed reflectivity = 1.0 dBZ.

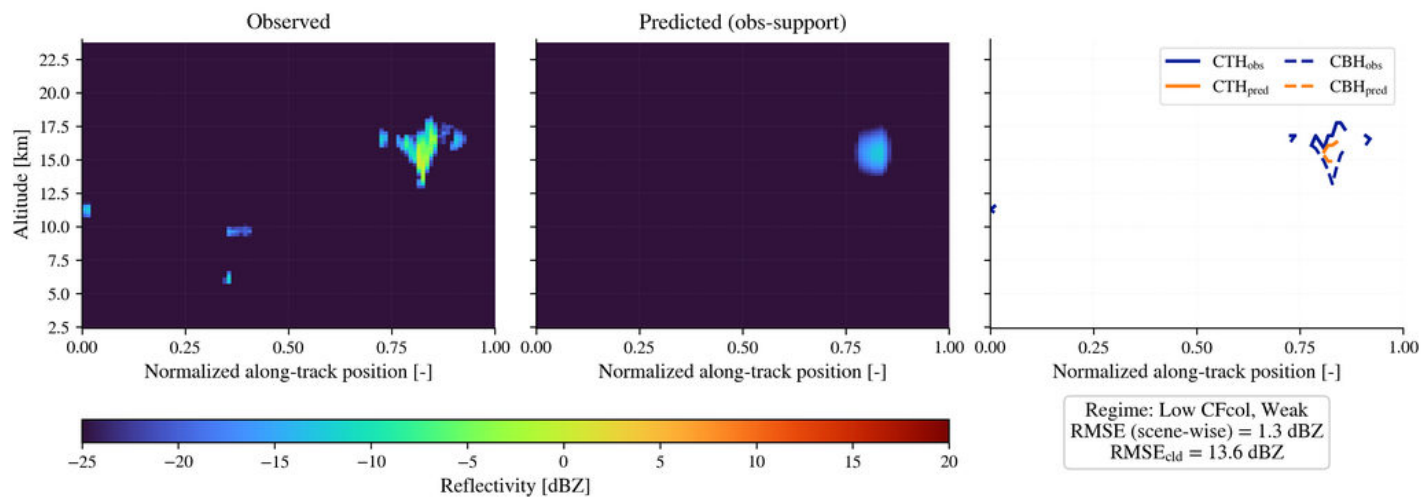


Figure S37. Low CFcol, Weak; observed CFcol = 0.081; maximum observed reflectivity = 2.9 dBZ.

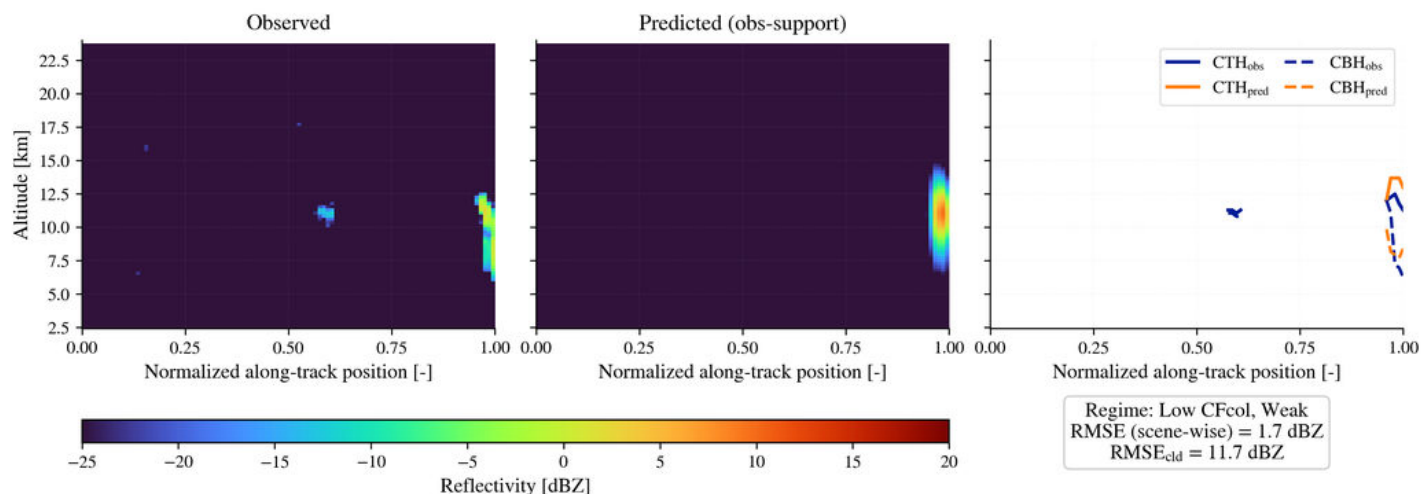


Figure S38. High CFcol, Weak; observed CFcol = 0.882; maximum observed reflectivity = -1.0 dBZ.

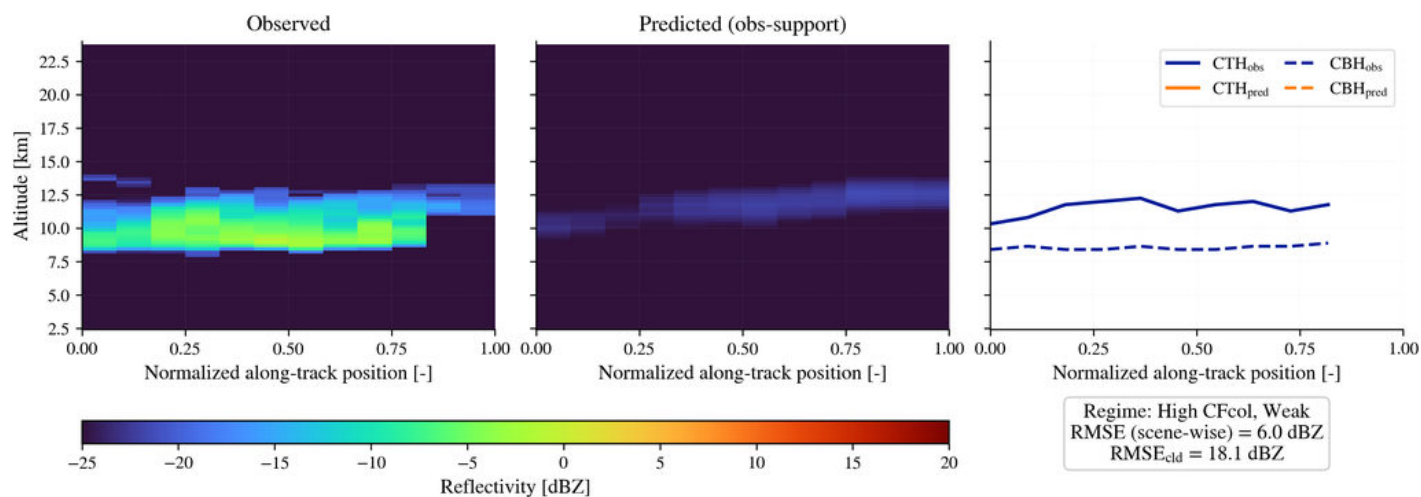


Figure S39. Low CFcol, Weak; observed CFcol = 0.063; maximum observed reflectivity = 0.7 dBZ.

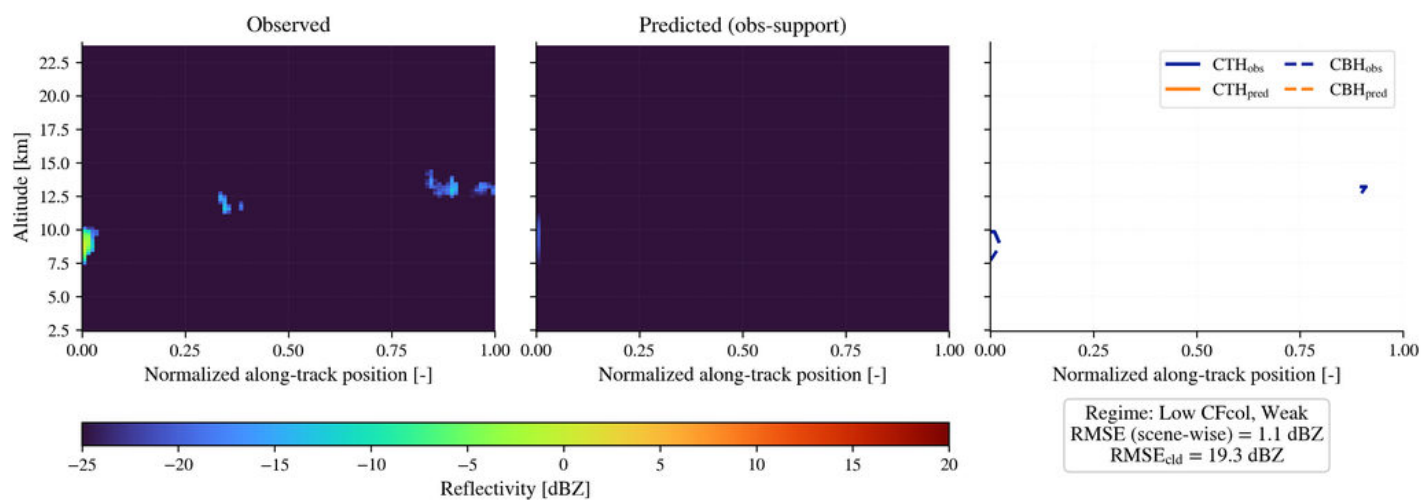


Figure S40. Med CFcol, Weak; observed CFcol = 0.489; maximum observed reflectivity = 1.9 dBZ.

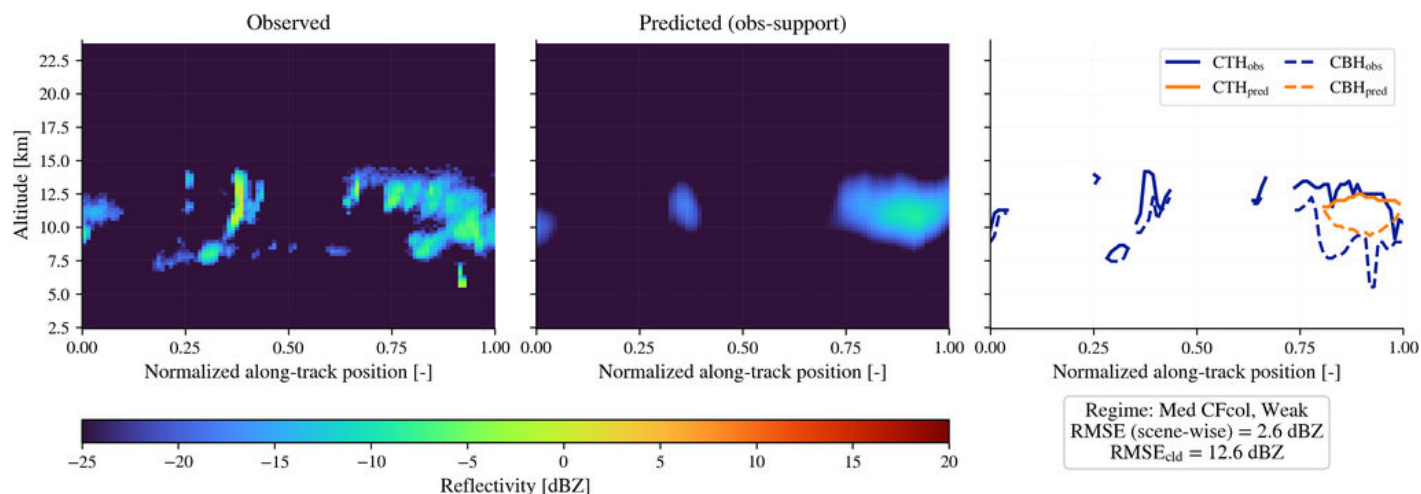


Figure S41. Low CFcol, Weak; observed CFcol = 0.127; maximum observed reflectivity = -1.9 dBZ.

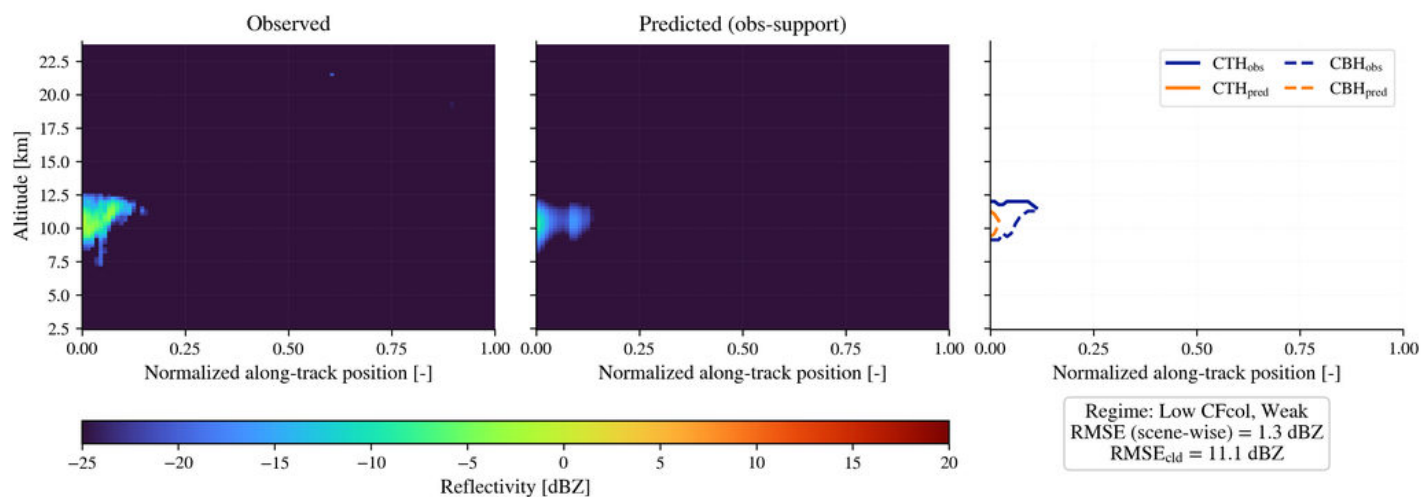


Figure S42. Low CFcol, Weak; observed CFcol = 0.060; maximum observed reflectivity = 1.3 dBZ.

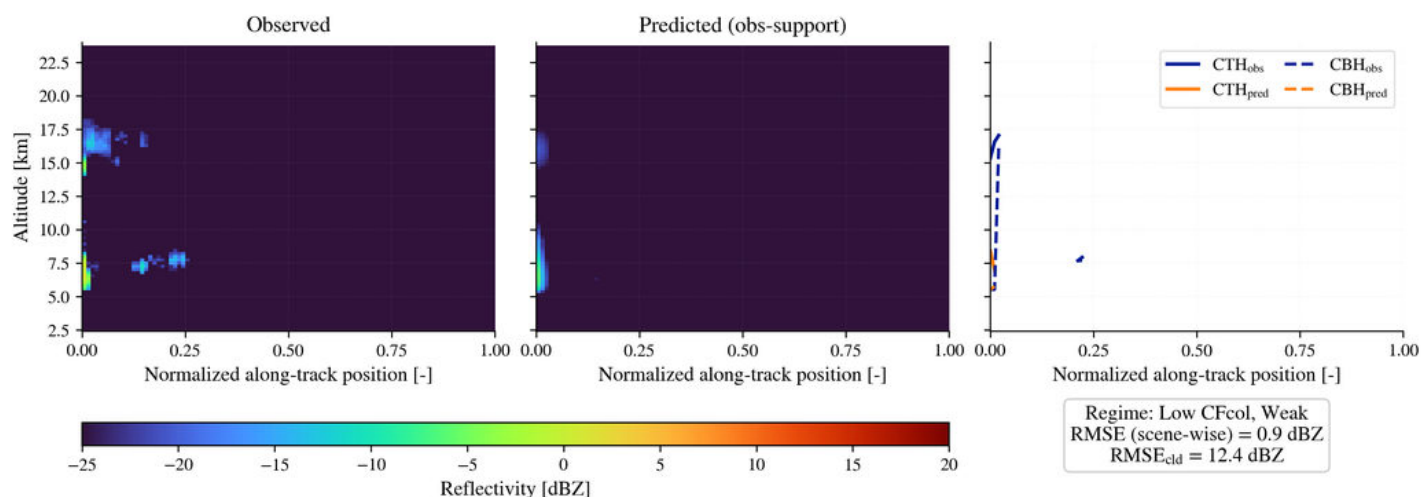


Figure S43. High CFcol, Strong; observed CFcol = 0.758; maximum observed reflectivity = 20.0 dBZ.

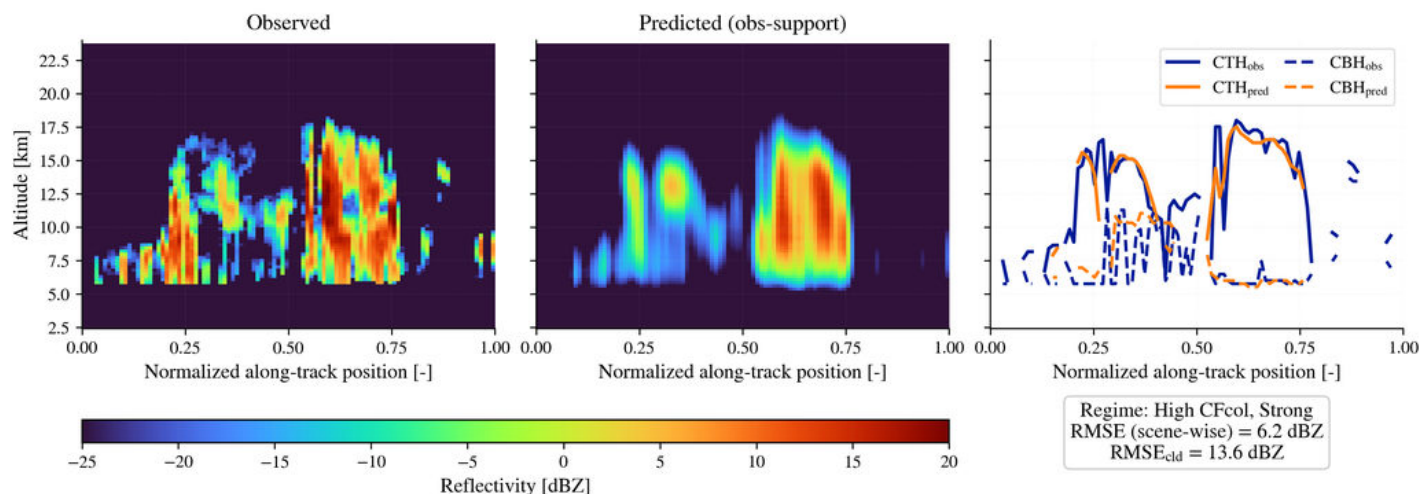


Figure S44. Med CFcol, Strong; observed CFcol = 0.288; maximum observed reflectivity = 16.8 dBZ.

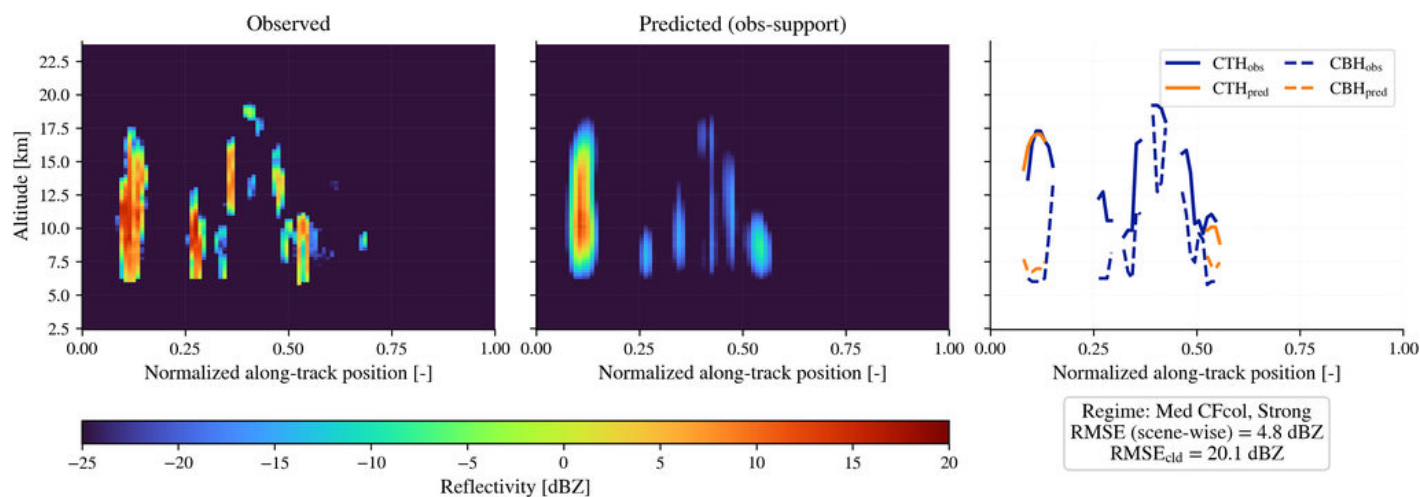


Figure S45. Med CFcol, Weak; observed CFcol = 0.331; maximum observed reflectivity = 0.5 dBZ.

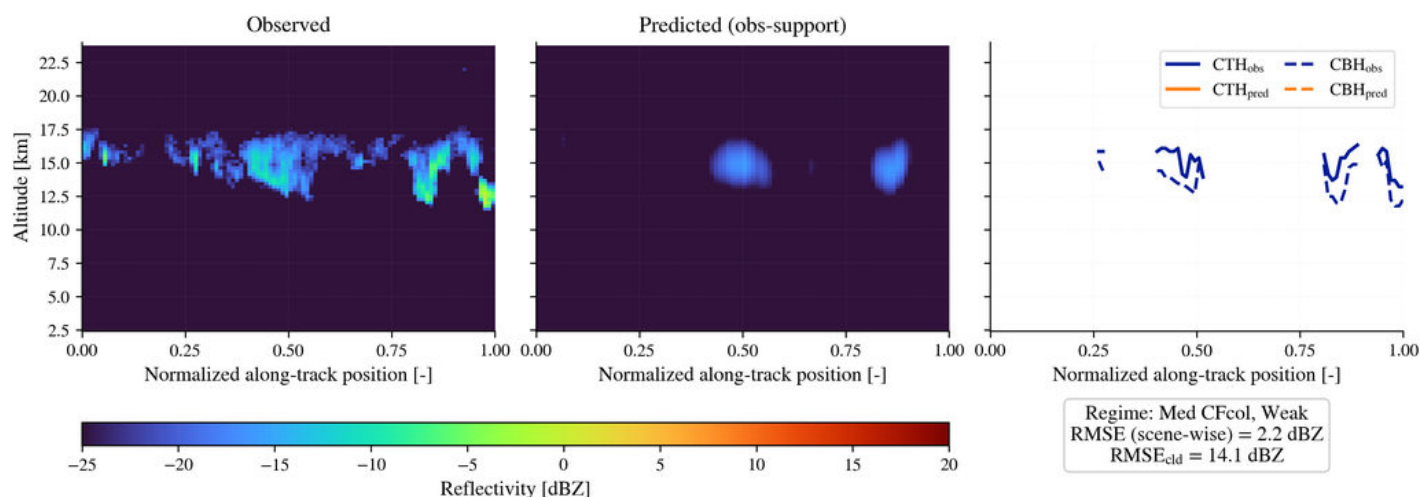


Figure S46. High CFcol, Weak; observed CFcol = 0.758; maximum observed reflectivity = 0.4 dBZ.

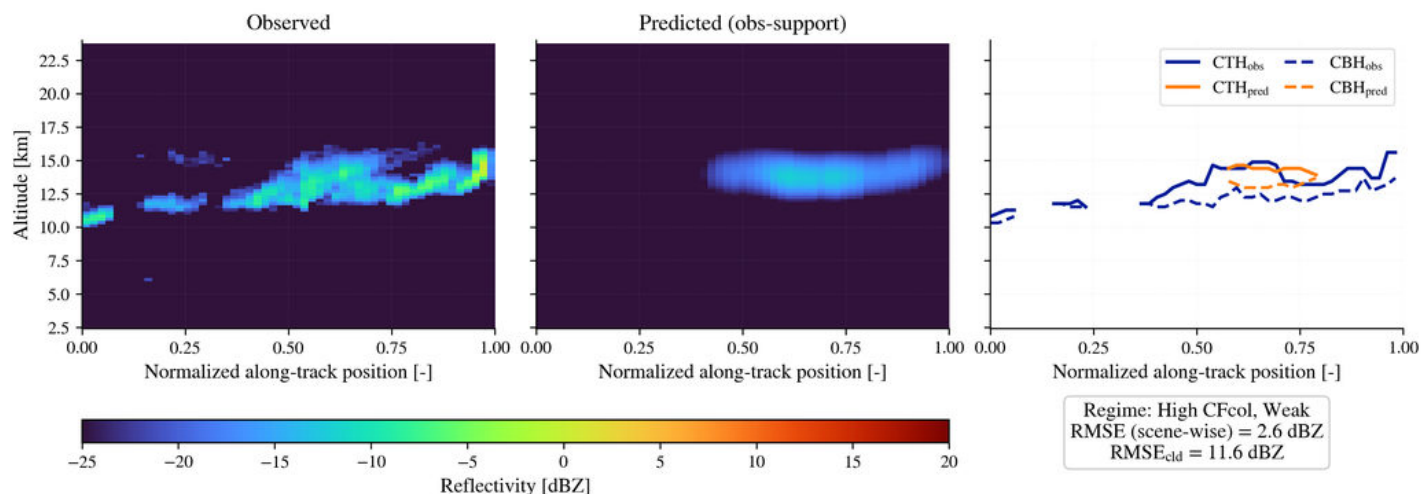


Figure S47. High CFcol, Weak; observed CFcol = 0.621; maximum observed reflectivity = 2.3 dBZ.

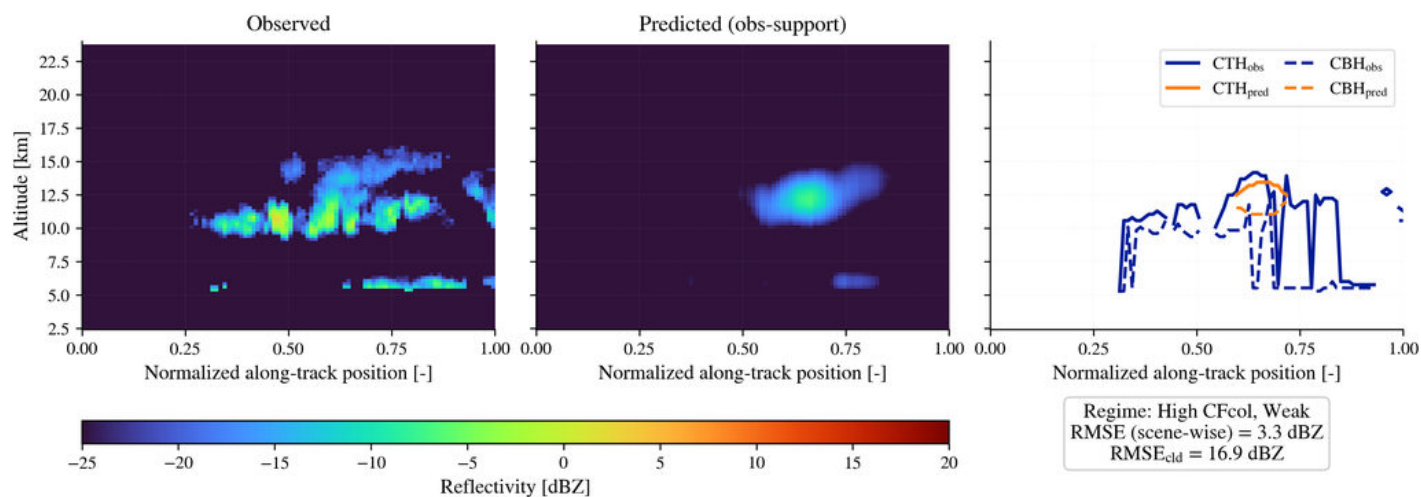


Figure S48. Low CFcol, Weak; observed CFcol = 0.131; maximum observed reflectivity = -1.7 dBZ.

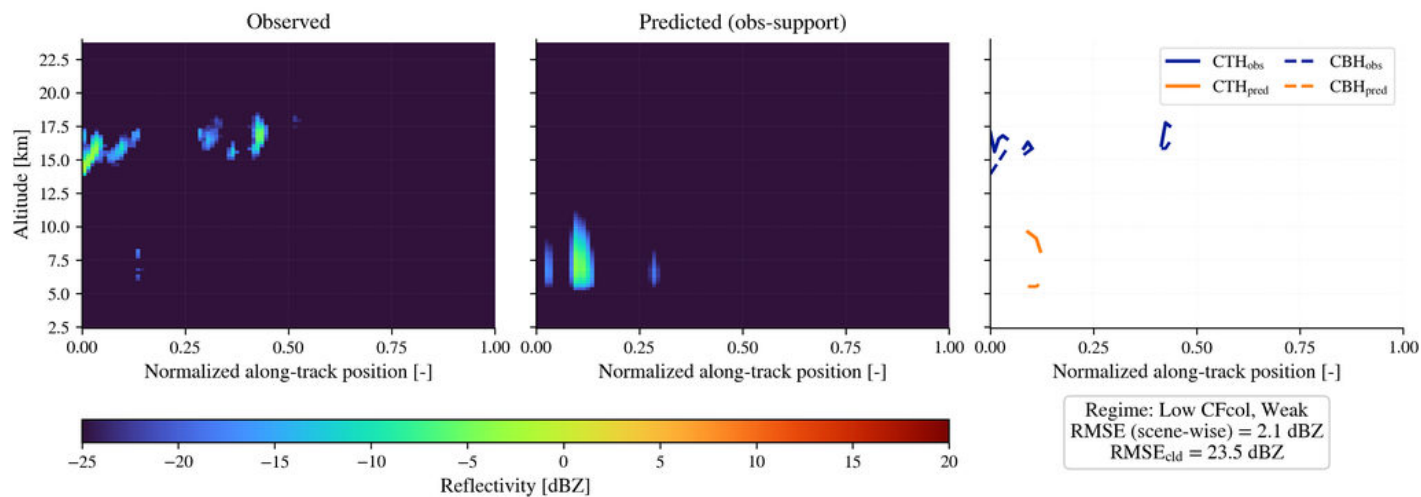


Figure S49. High CFcol, Weak; observed CFcol = 0.786; maximum observed reflectivity = 4.7 dBZ.

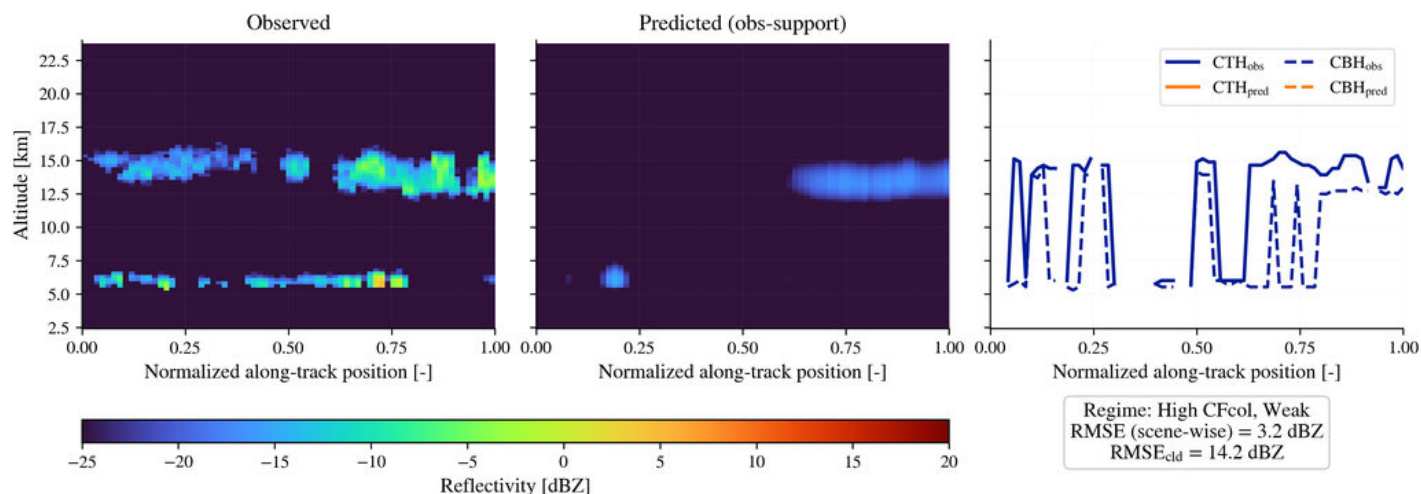


Figure S50. Med CFcol, Weak; observed CFcol = 0.517; maximum observed reflectivity = 3.1 dBZ.

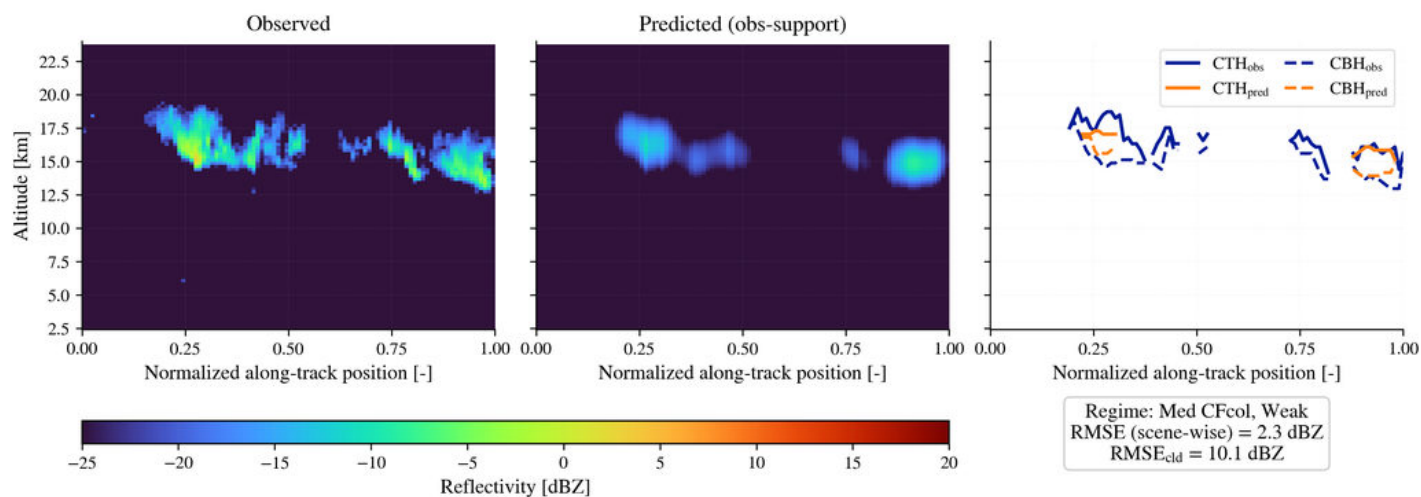


Figure S51. Low CFcol, Strong; observed CFcol = 0.103; maximum observed reflectivity = 14.0 dBZ.

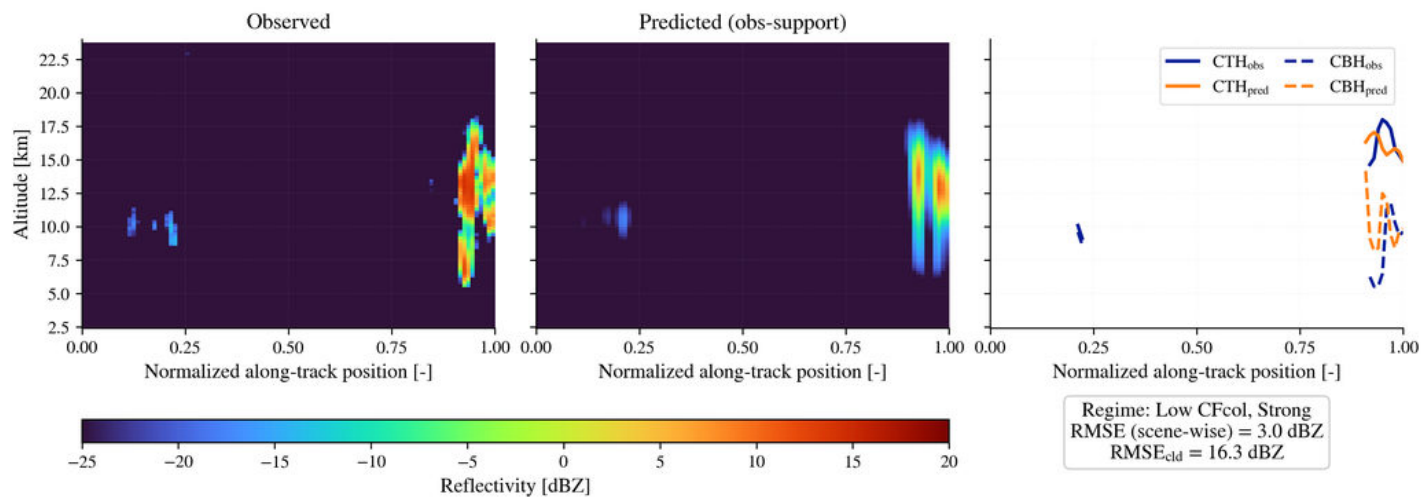


Figure S52. High CFcol, Strong; observed CFcol = 0.977; maximum observed reflectivity = 17.0 dBZ.

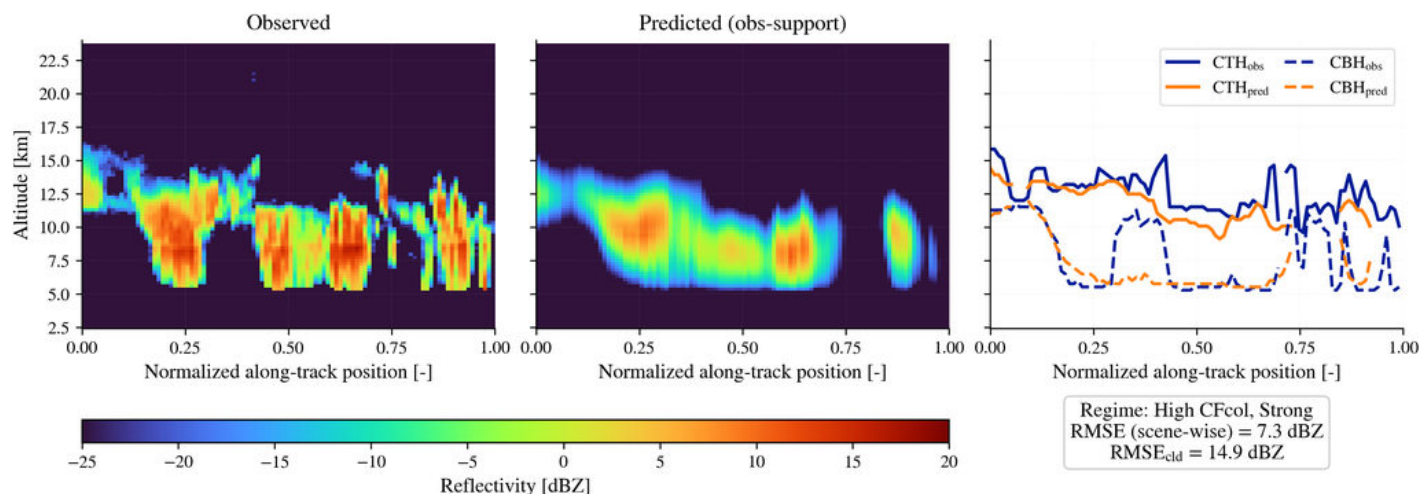


Figure S53. High CFcol, Strong; observed CFcol = 0.723; maximum observed reflectivity = 19.3 dBZ.

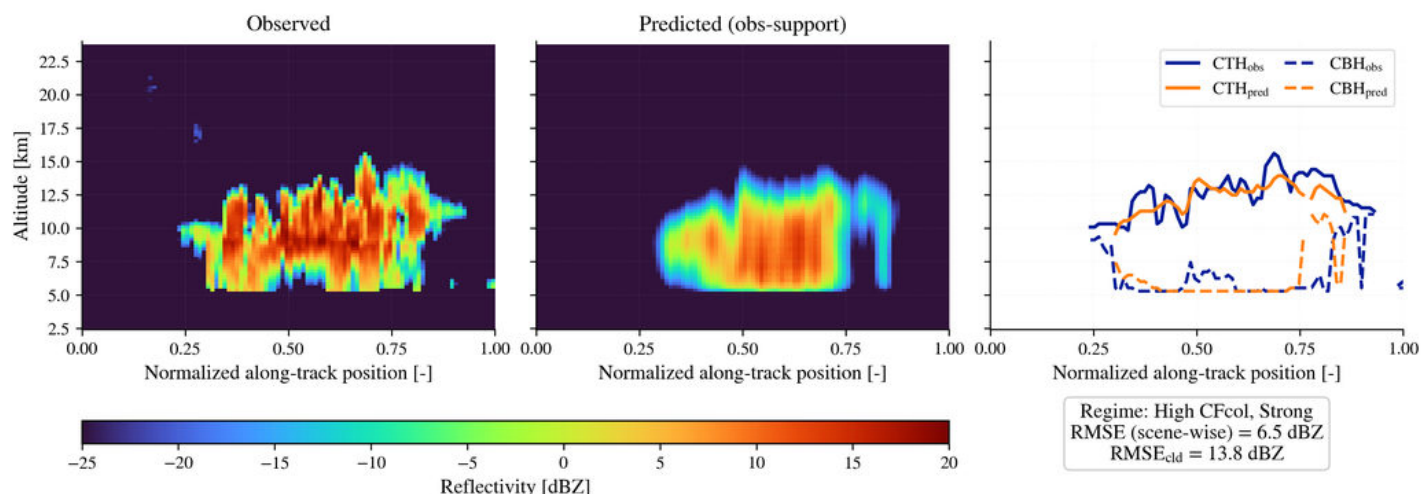


Figure S54. Med CFcol, Strong; observed CFcol = 0.439; maximum observed reflectivity = 13.7 dBZ.

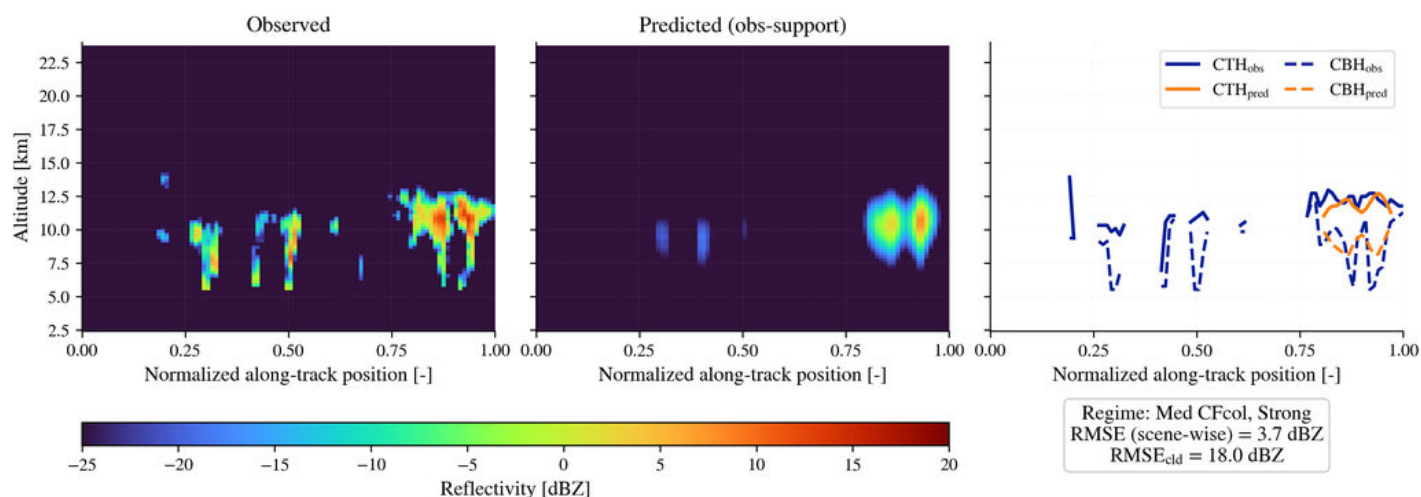


Figure S55. High CFcol, Strong; observed CFcol = 0.945; maximum observed reflectivity = 19.3 dBZ.

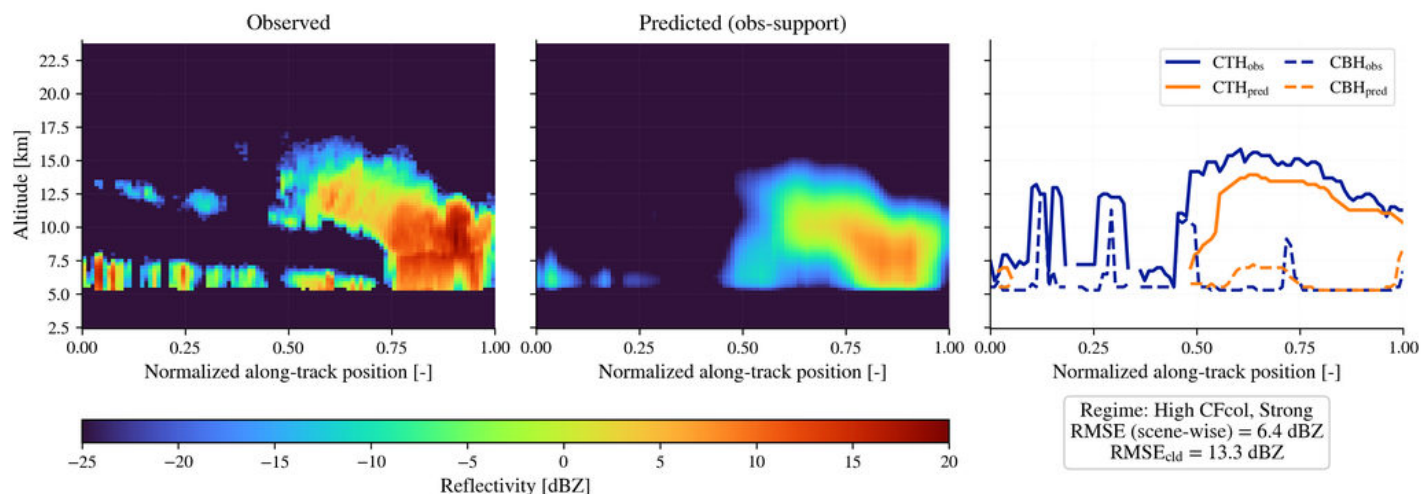


Figure S56. Med CFcol, Weak; observed CFcol = 0.336; maximum observed reflectivity = 0.2 dBZ.

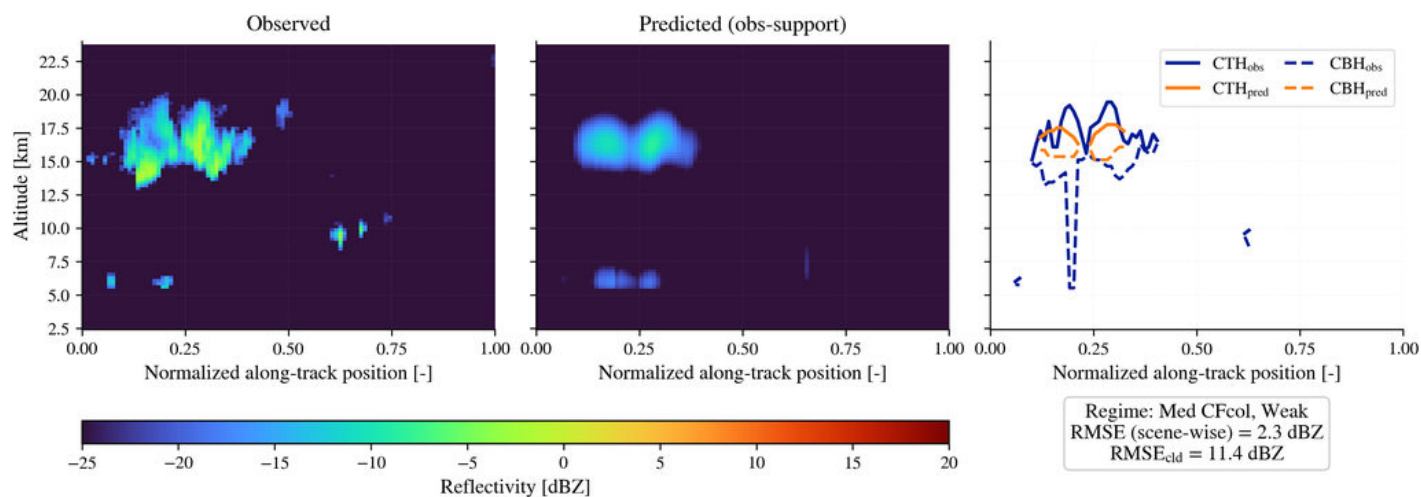


Figure S57. Med CFcol, Strong; observed CFcol = 0.556; maximum observed reflectivity = 13.3 dBZ.

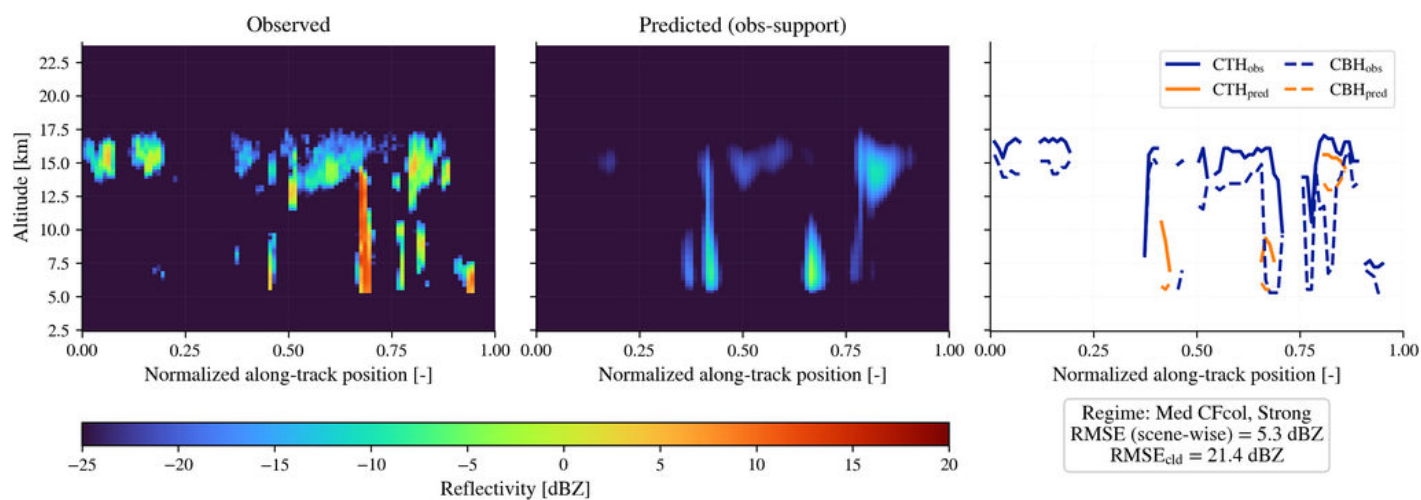


Figure S58. Low CFcol, Strong; observed CFcol = 0.189; maximum observed reflectivity = 6.9 dBZ.

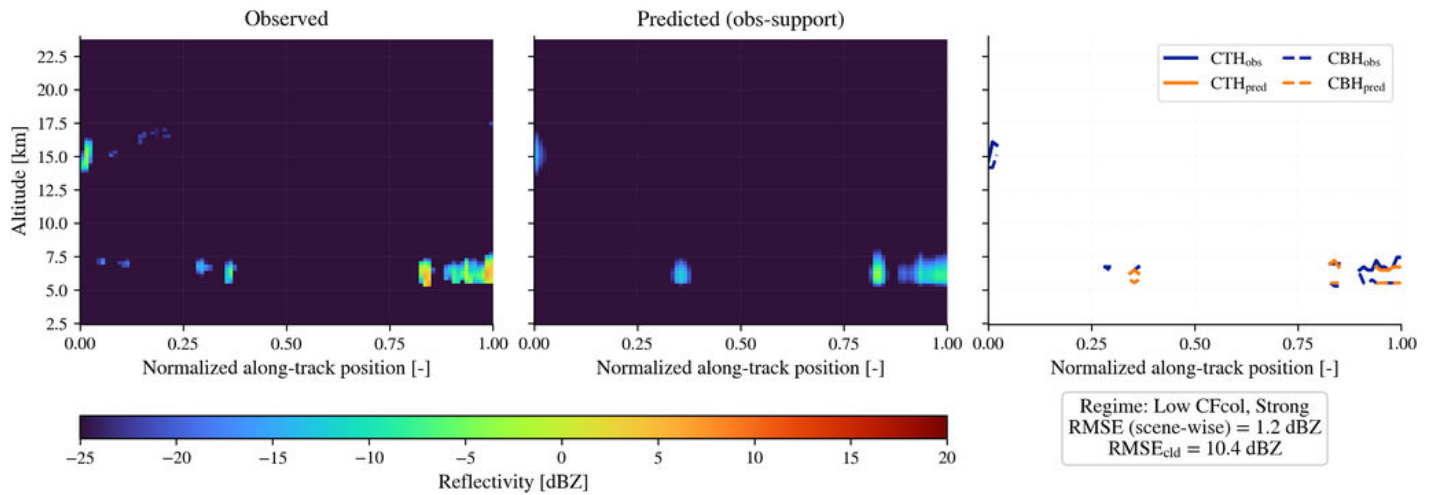


Figure S59. High CFcol, Strong; observed CFcol = 0.715; maximum observed reflectivity = 15.3 dBZ.

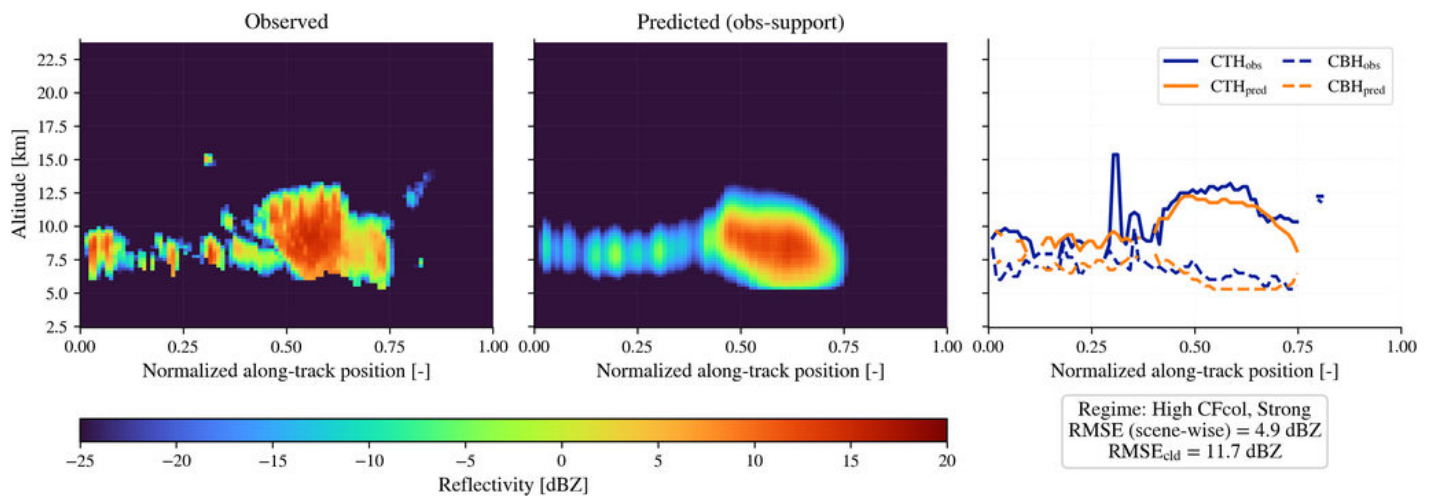


Figure S60. Low CFcol, Strong; observed CFcol = 0.153; maximum observed reflectivity = 17.3 dBZ.

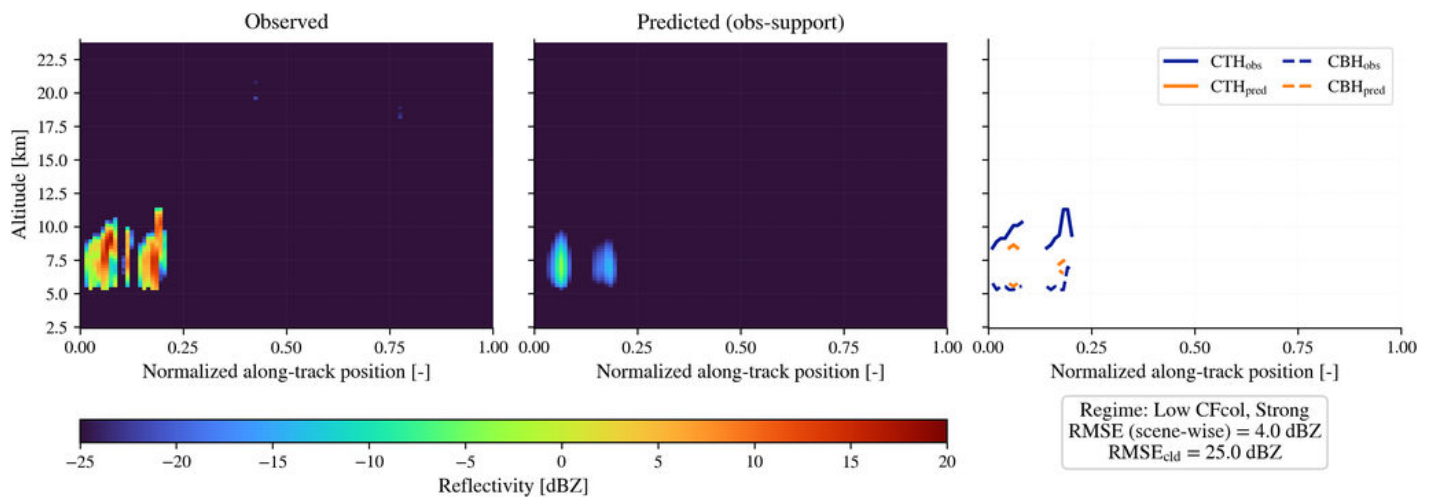


Figure S61. High CFcol, Strong; observed CFcol = 0.629; maximum observed reflectivity = 18.2 dBZ.

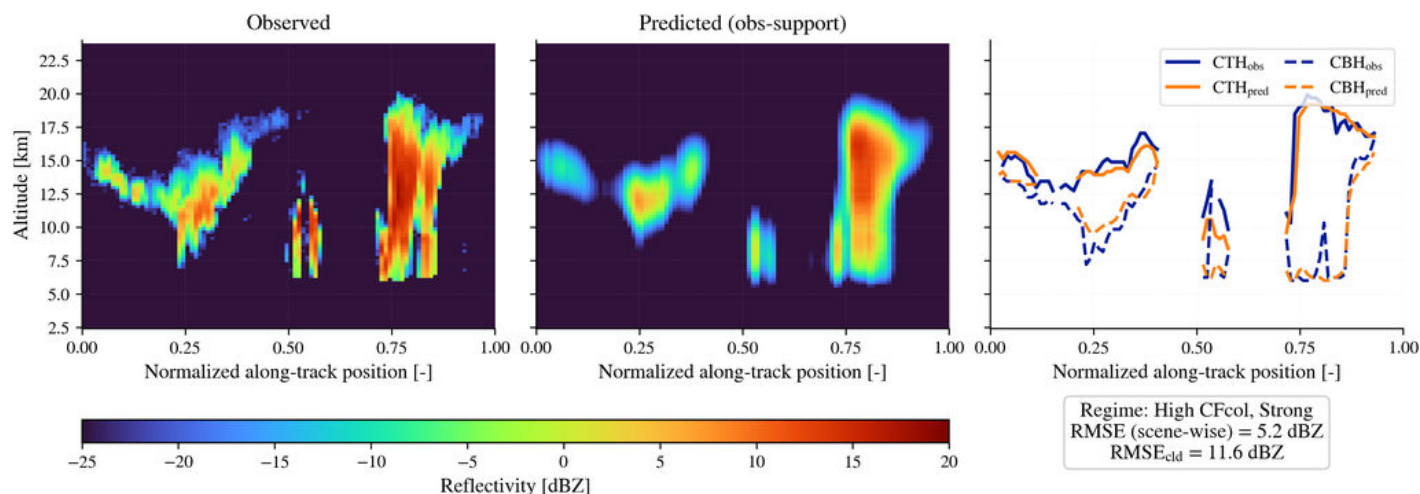


Figure S62. Med CFcol, Strong; observed CFcol = 0.440; maximum observed reflectivity = 18.0 dBZ.

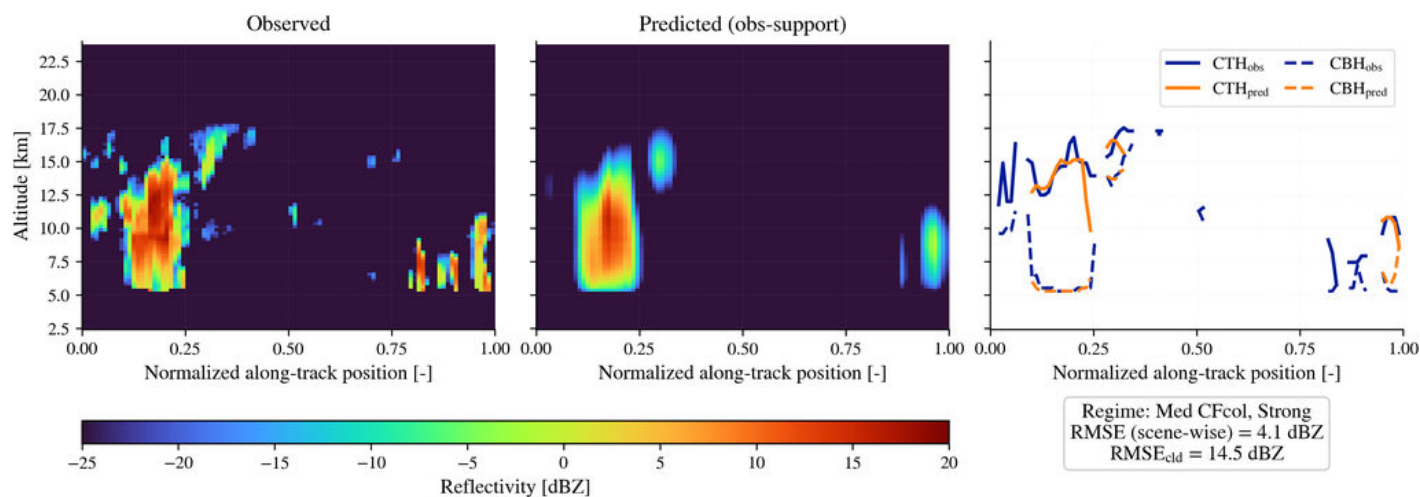


Figure S63. Low CFcol, Weak; observed CFcol = 0.076; maximum observed reflectivity = -1.7 dBZ.

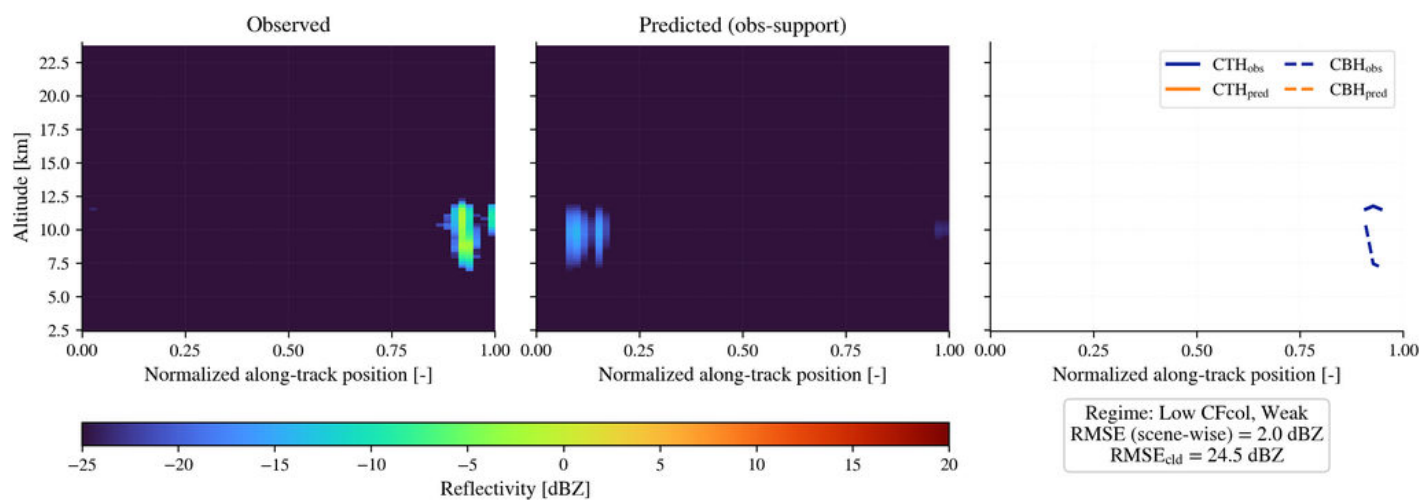


Figure S64. Med CFcol, Strong; observed CFcol = 0.443; maximum observed reflectivity = 20.0 dBZ.

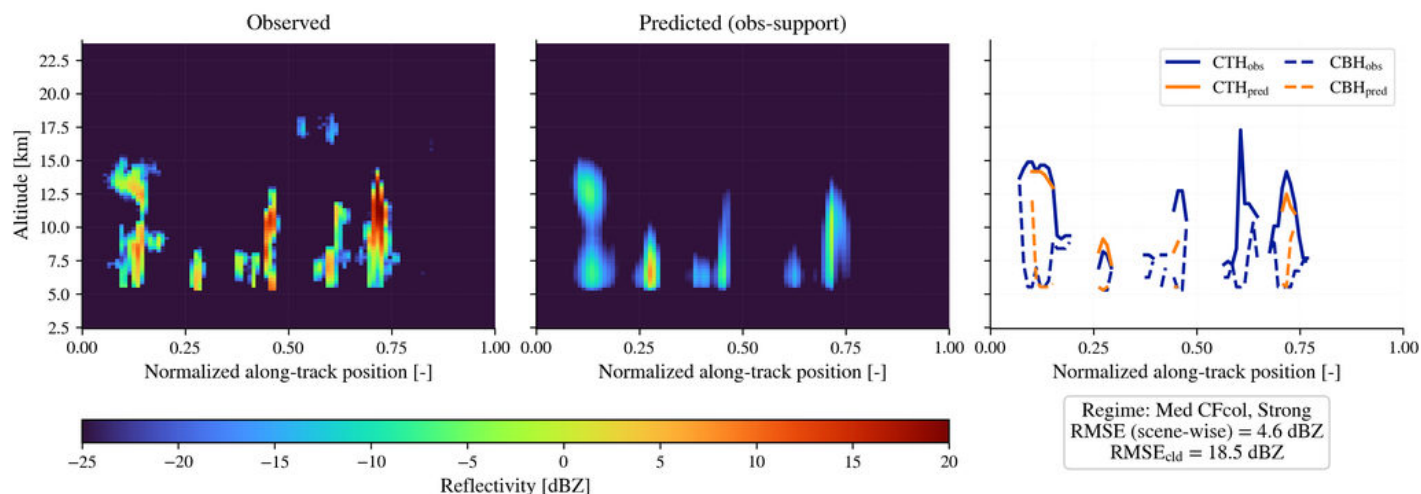


Figure S65. Med CFcol, Weak; observed CFcol = 0.209; maximum observed reflectivity = 2.2 dBZ.

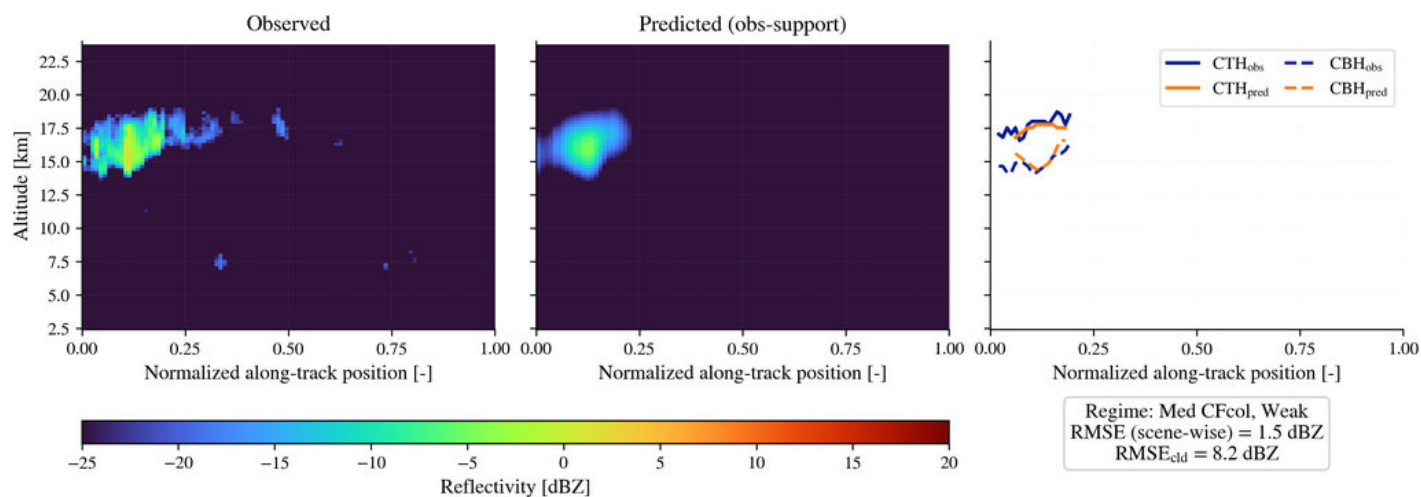


Figure S66. Low CFcol, Weak; observed CFcol = 0.153; maximum observed reflectivity = 0.2 dBZ.

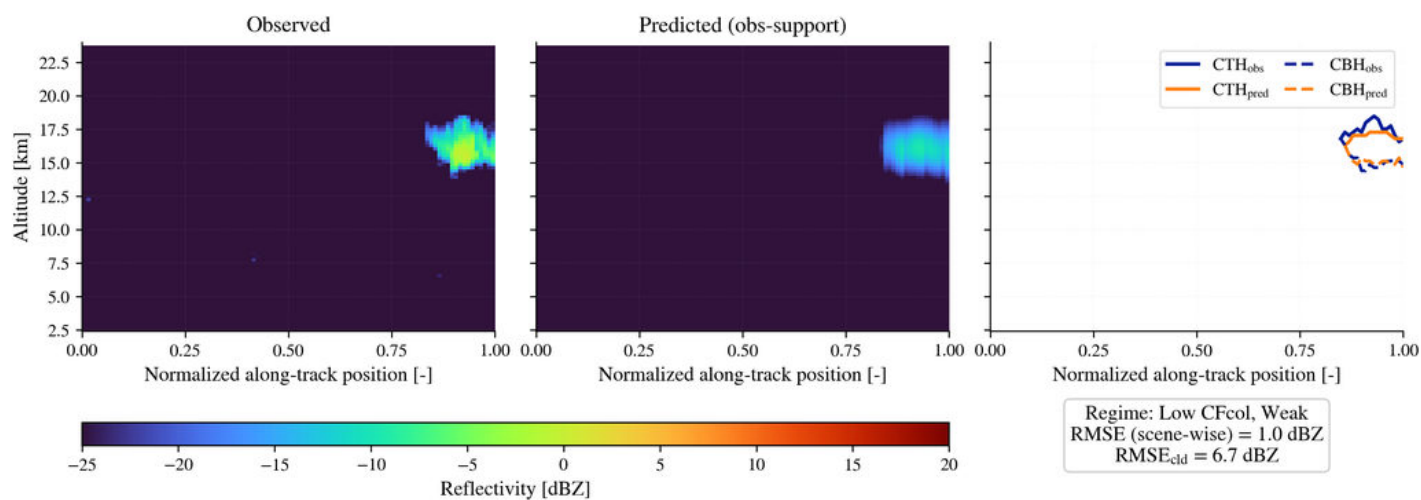


Figure S67. High CFcol, Strong; observed CFcol = 0.664; maximum observed reflectivity = 8.5 dBZ.

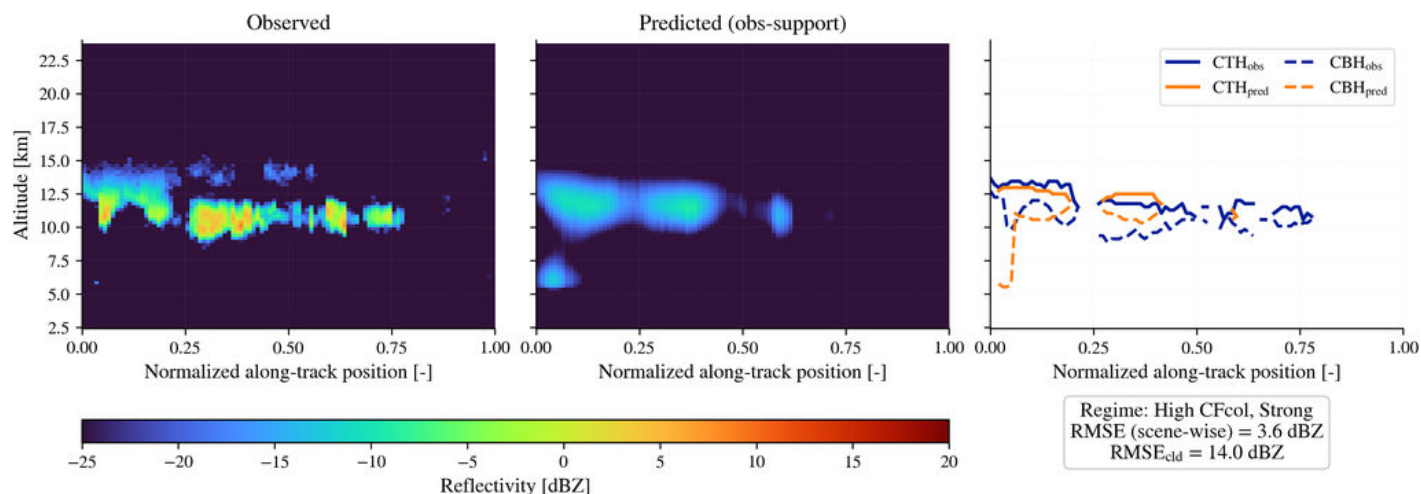


Figure S68. Med CFcol, Weak; observed CFcol = 0.285; maximum observed reflectivity = 4.9 dBZ.

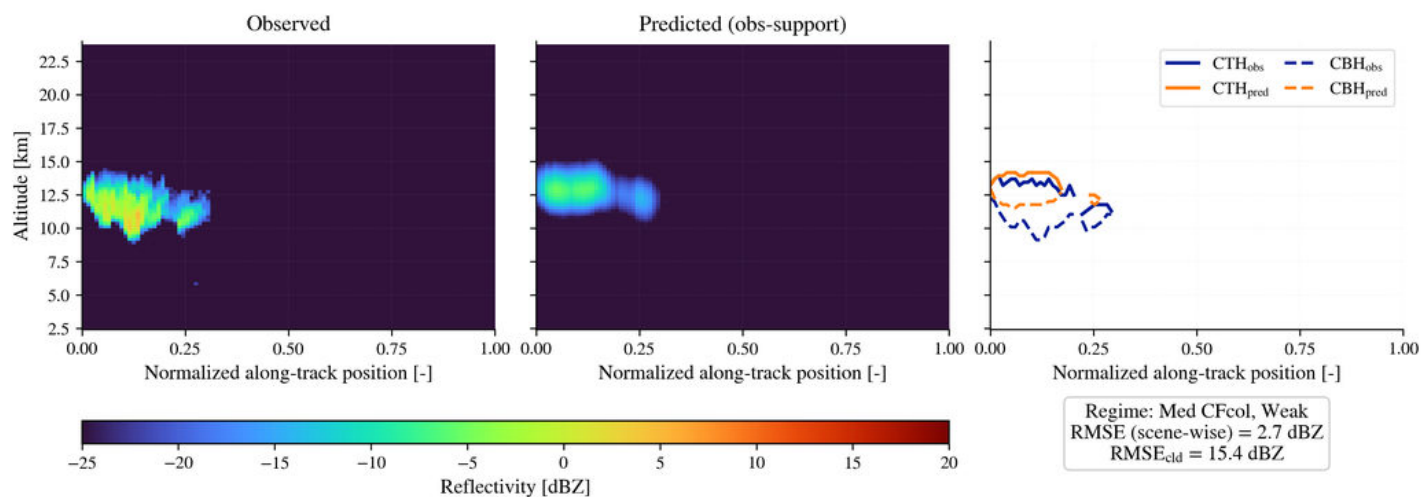


Figure S69. Med CFcol, Strong; observed CFcol = 0.463; maximum observed reflectivity = 11.2 dBZ.

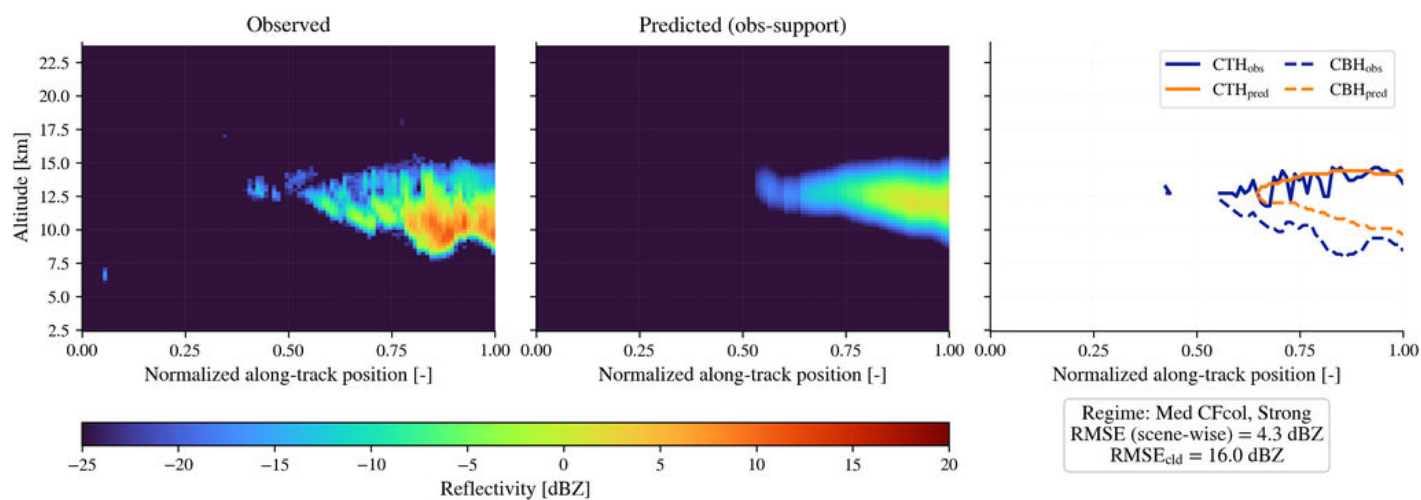


Figure S70. Med CFcol, Strong; observed CFcol = 0.487; maximum observed reflectivity = 18.0 dBZ.

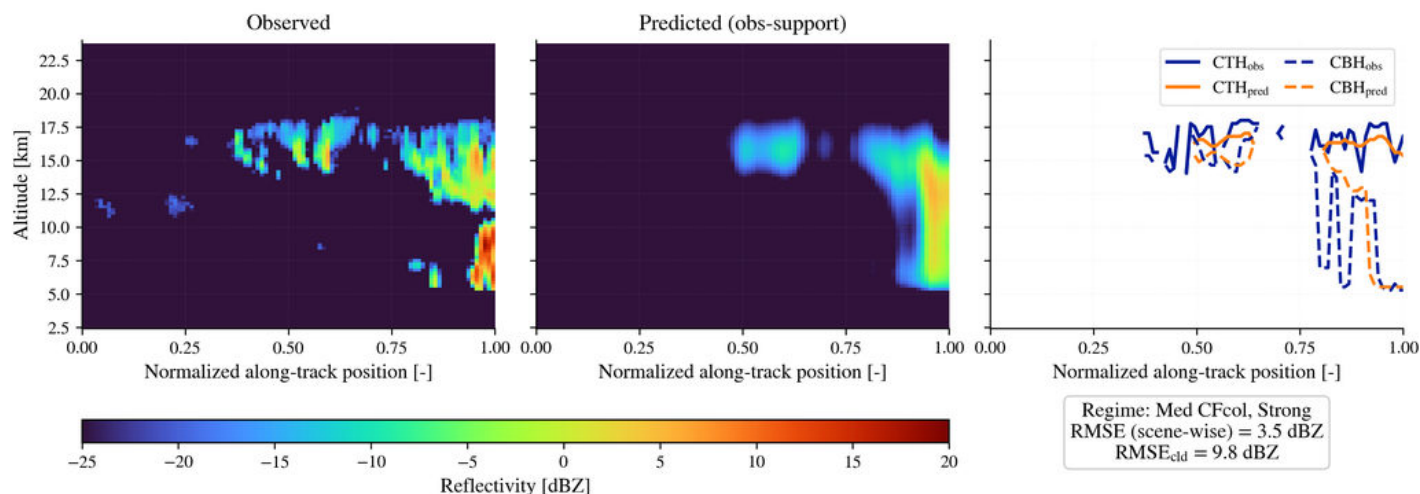


Figure S71. Low CFcol, Strong; observed CFcol = 0.145; maximum observed reflectivity = 19.0 dBZ.

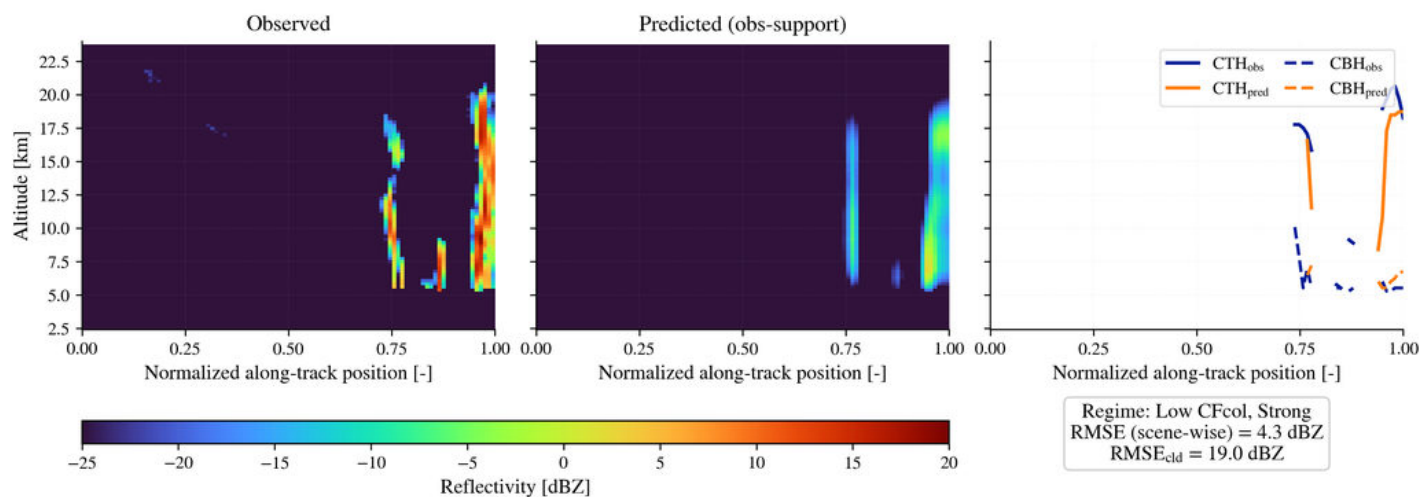


Figure S72. Med CFcol, Strong; observed CFcol = 0.530; maximum observed reflectivity = 6.3 dBZ.

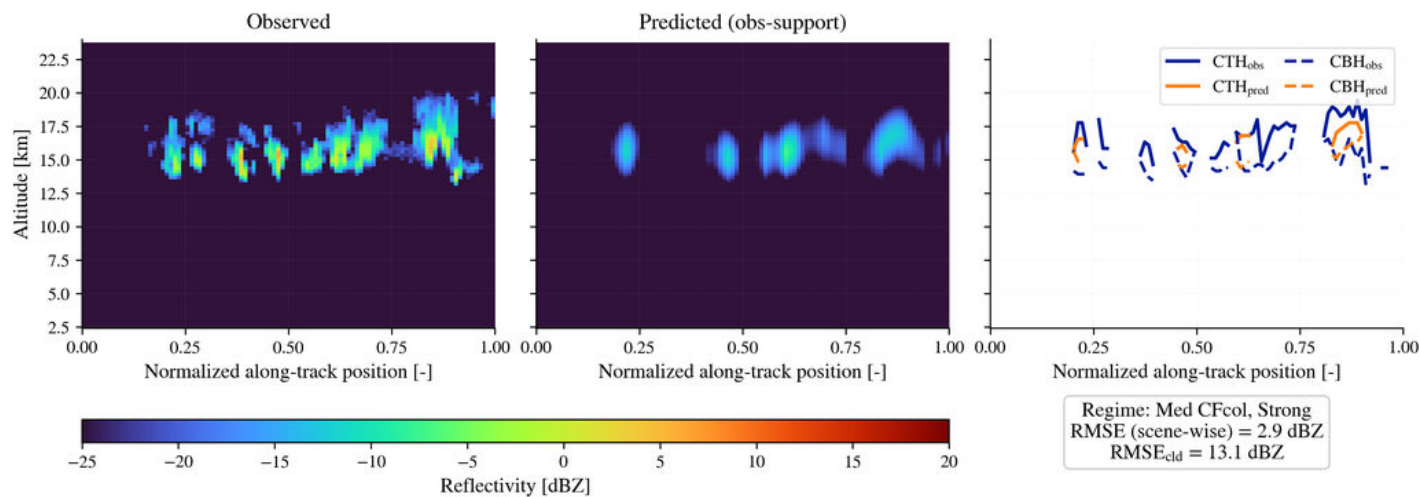


Figure S73. High CFcol, Strong; observed CFcol = 0.695; maximum observed reflectivity = 18.1 dBZ.

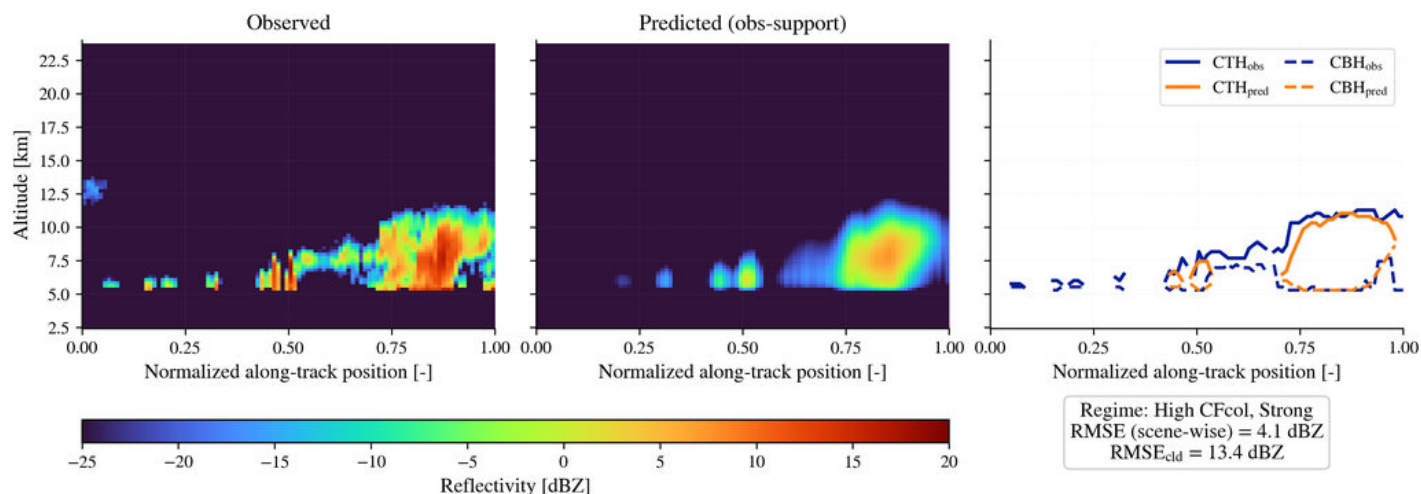


Figure S74. Low CFcol, Weak; observed CFcol = 0.195; maximum observed reflectivity = 0.8 dBZ.

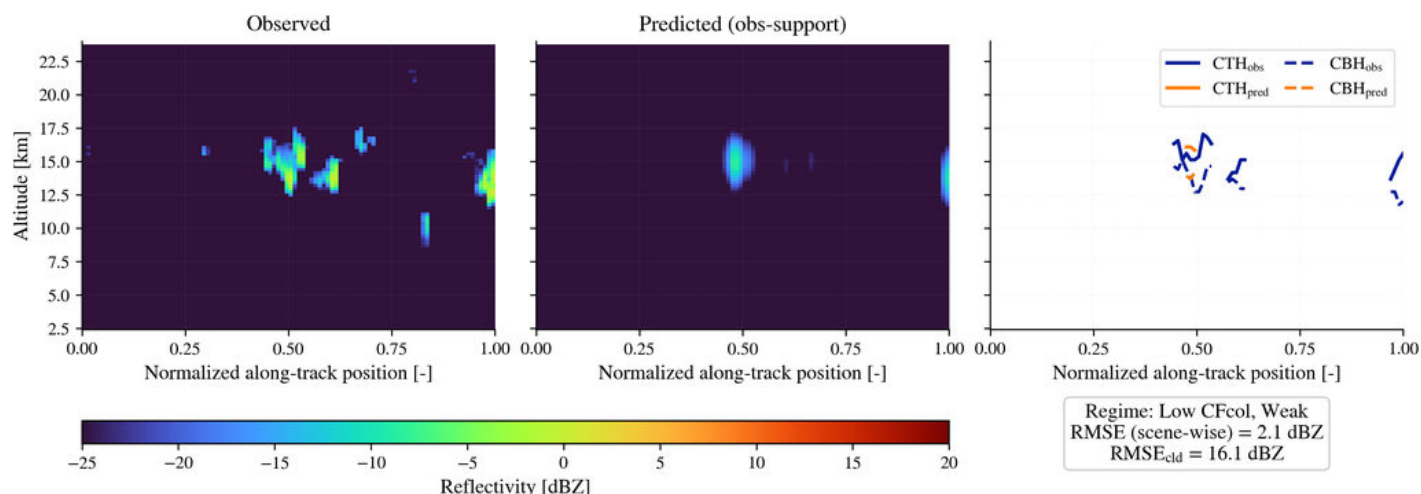


Figure S75. Med CFcol, Weak; observed CFcol = 0.500; maximum observed reflectivity = 0.4 dBZ.

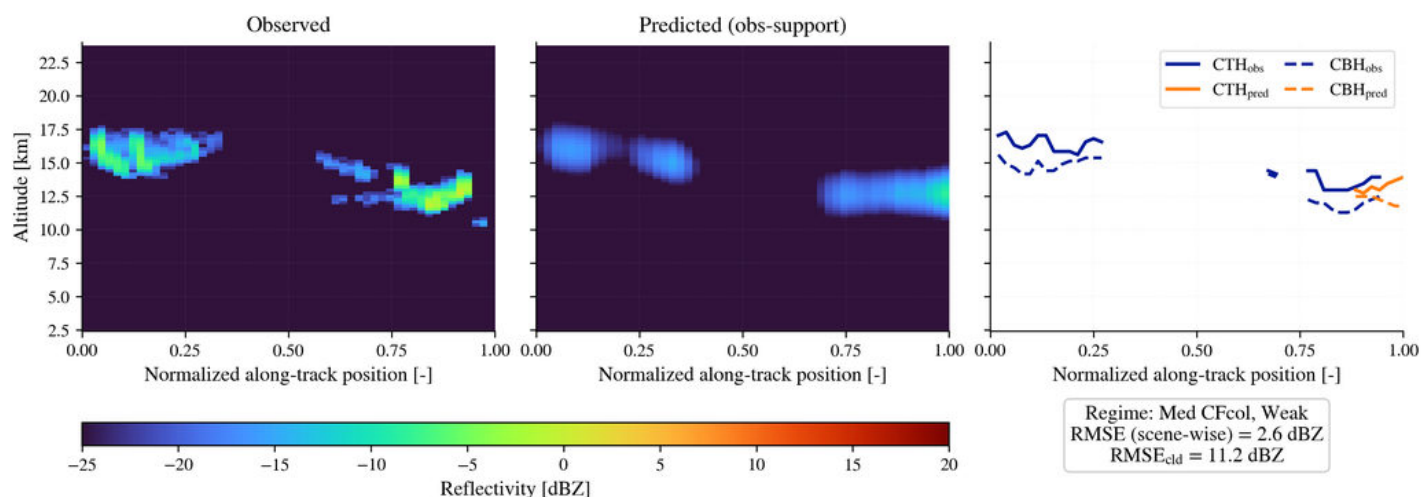


Figure S76. Low CFcol, Strong; observed CFcol = 0.188; maximum observed reflectivity = 18.3 dBZ.

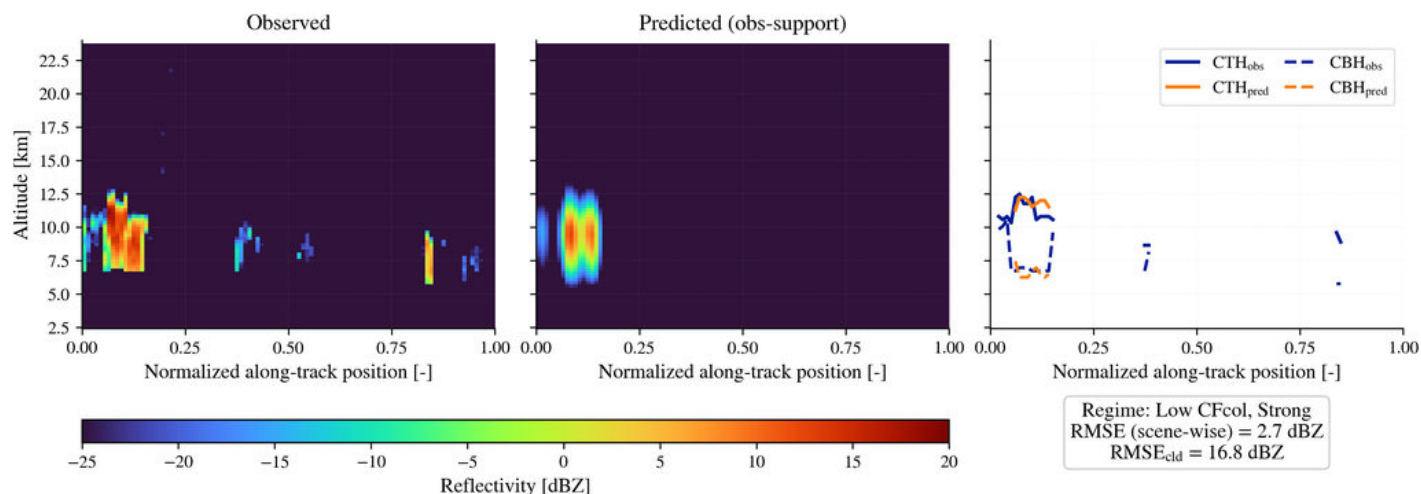


Figure S77. High CFcol, Weak; observed CFcol = 0.844; maximum observed reflectivity = 2.1 dBZ.

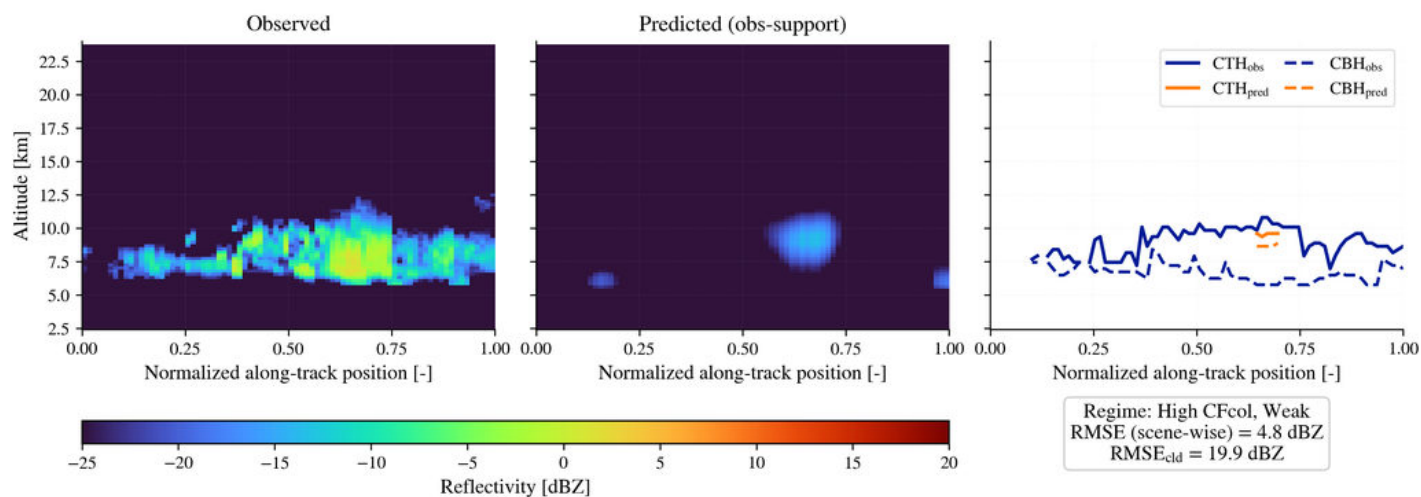


Figure S78. High CFcol, Strong; observed CFcol = 0.638; maximum observed reflectivity = 18.6 dBZ.

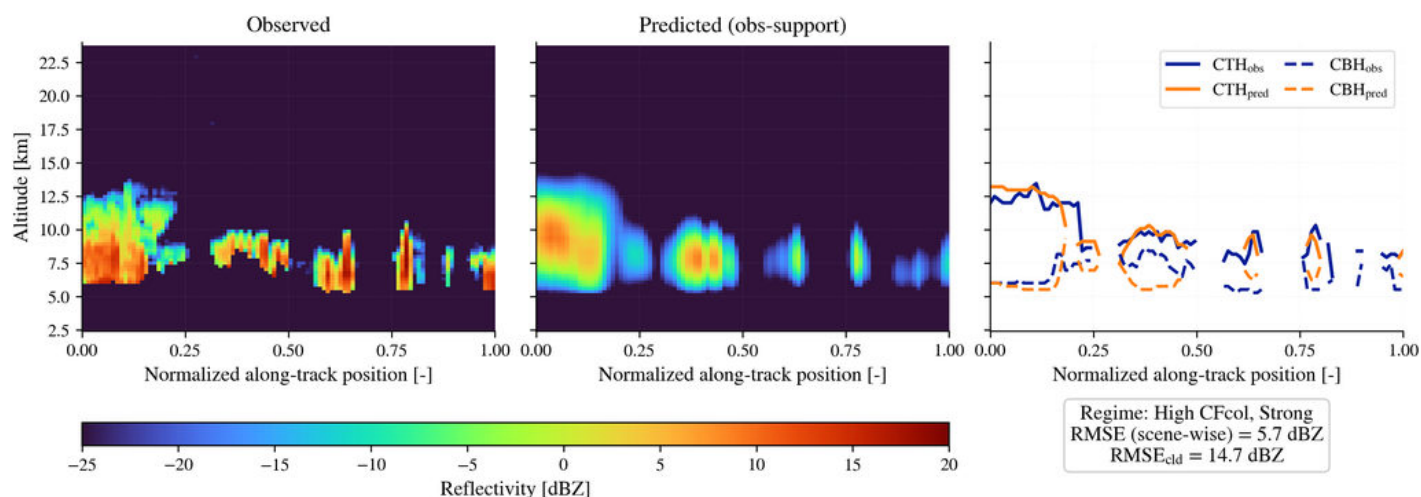


Figure S79. Med CFcol, Strong; observed CFcol = 0.552; maximum observed reflectivity = 16.2 dBZ.

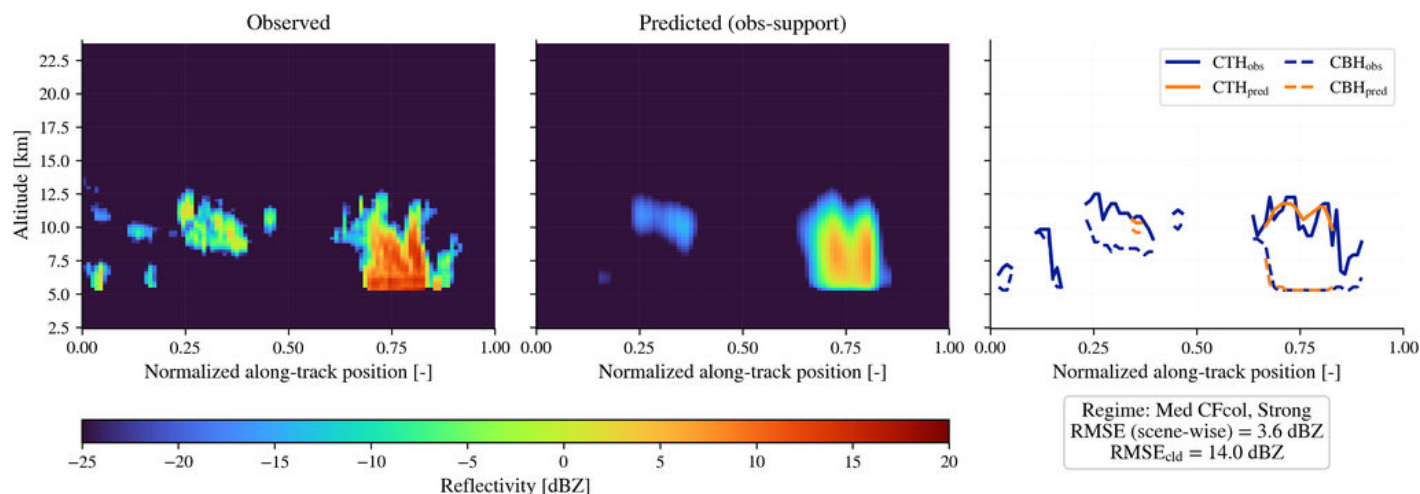


Figure S80. Med CFcol, Weak; observed CFcol = 0.352; maximum observed reflectivity = 4.0 dBZ.

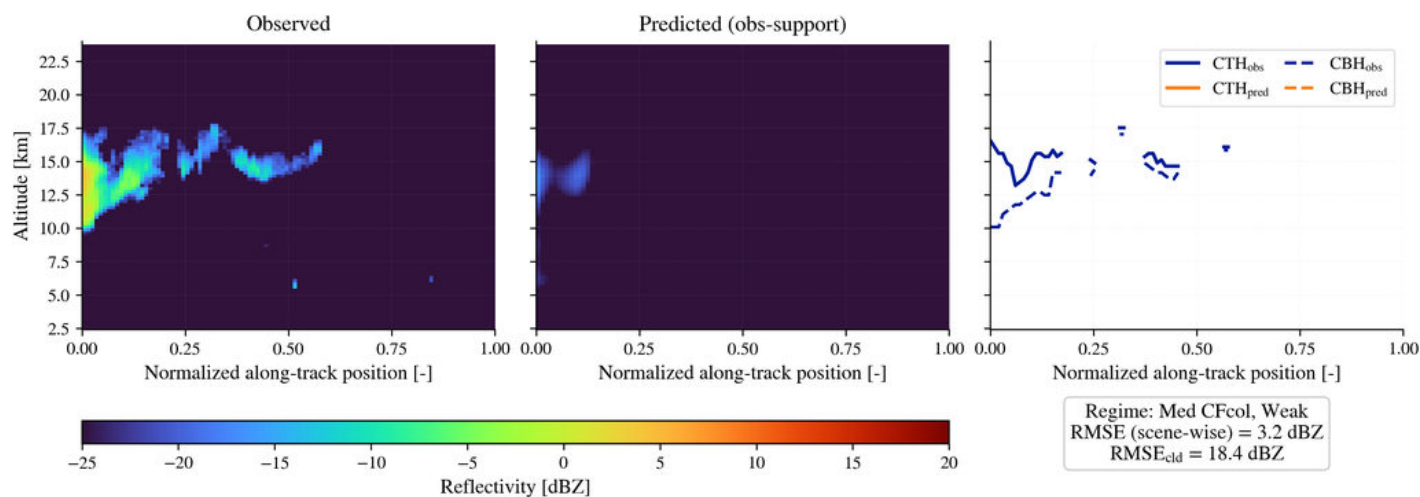


Figure S81. Low CFcol, Strong; observed CFcol = 0.178; maximum observed reflectivity = 13.2 dBZ.

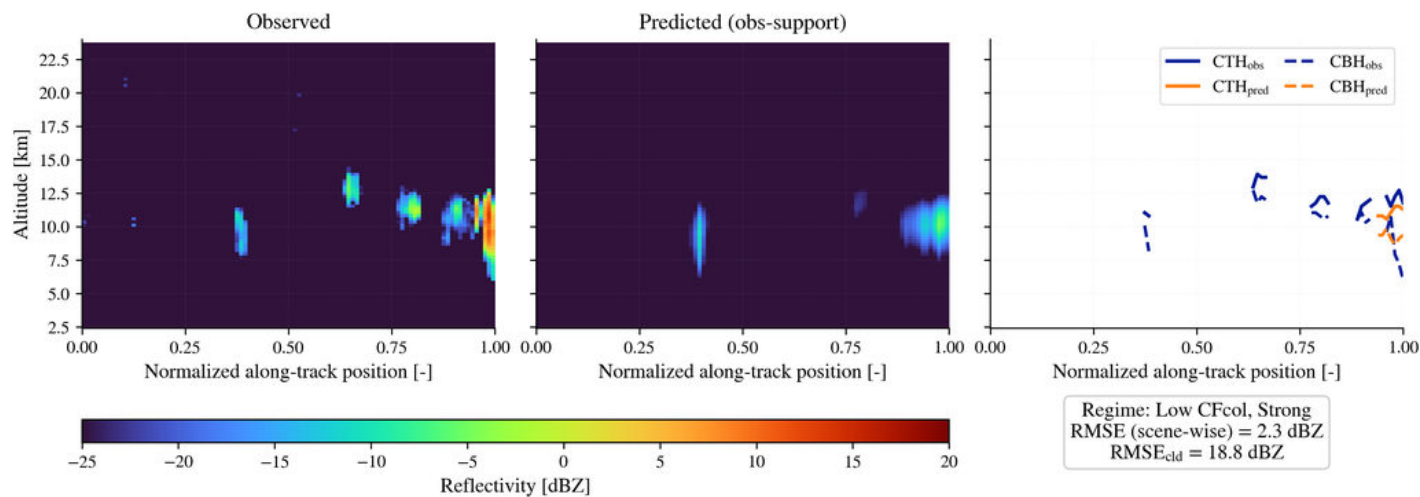


Figure S82. Med CFcol, Strong; observed CFcol = 0.289; maximum observed reflectivity = 12.2 dBZ.

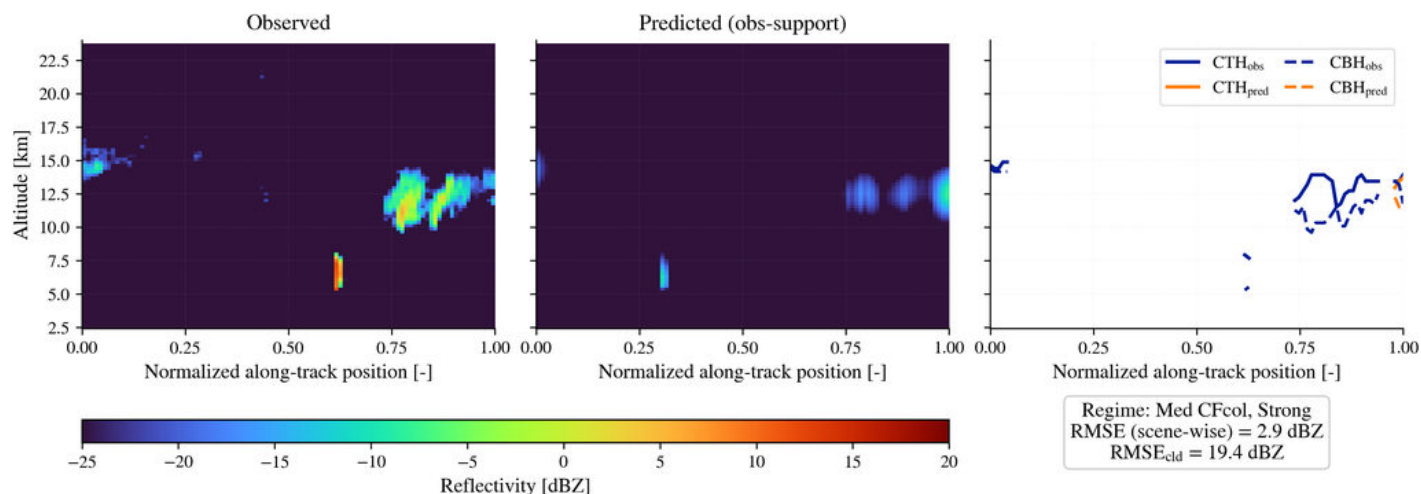


Figure S83. Med CFcol, Weak; observed CFcol = 0.536; maximum observed reflectivity = -0.4 dBZ.

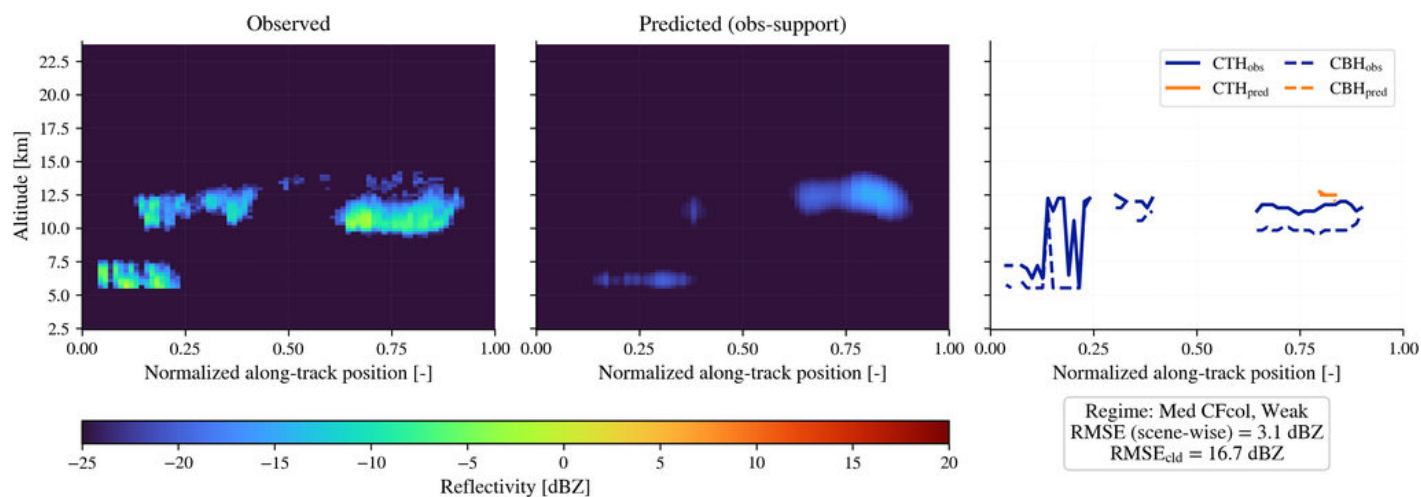


Figure S84. Med CFcol, Strong; observed CFcol = 0.445; maximum observed reflectivity = 12.1 dBZ.

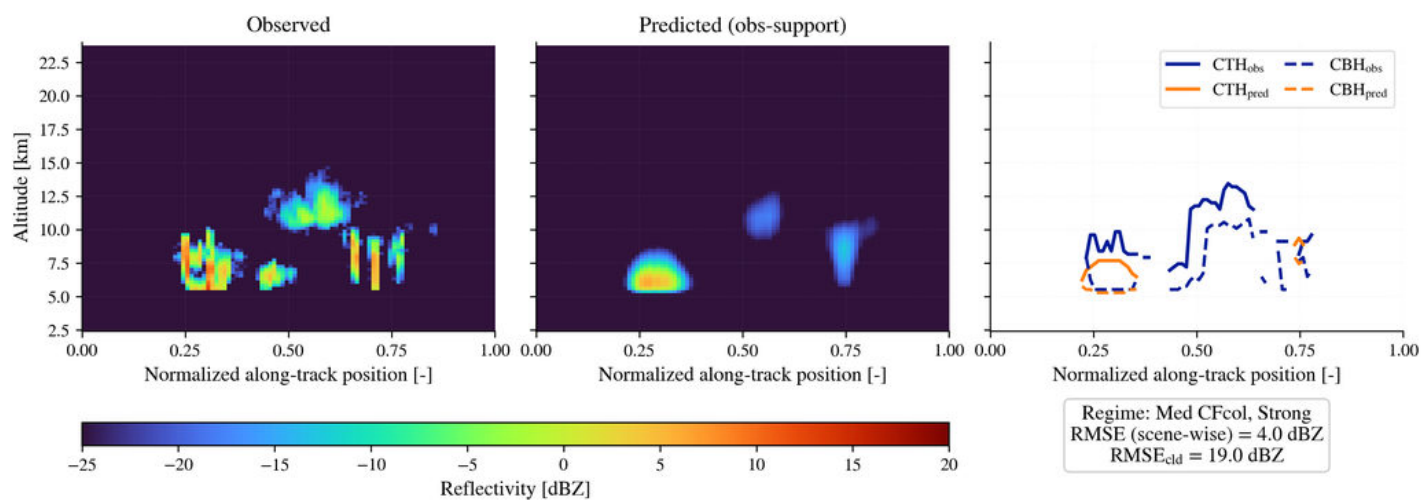


Figure S85. High CFcol, Strong; observed CFcol = 0.664; maximum observed reflectivity = 11.0 dBZ.

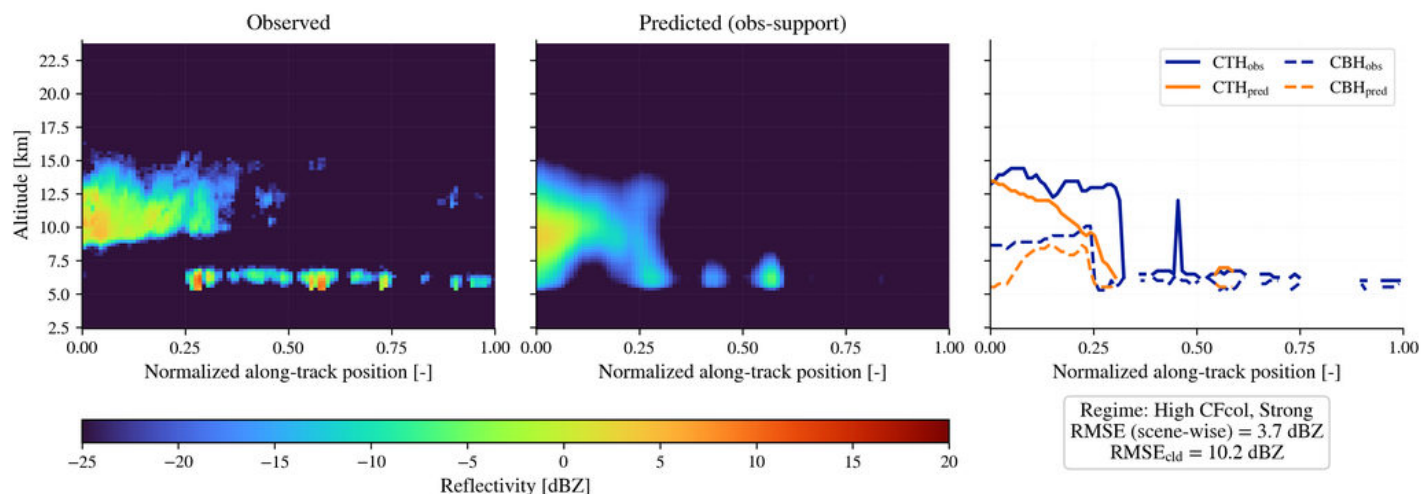


Figure S86. Med CFcol, Strong; observed CFcol = 0.377; maximum observed reflectivity = 17.3 dBZ.

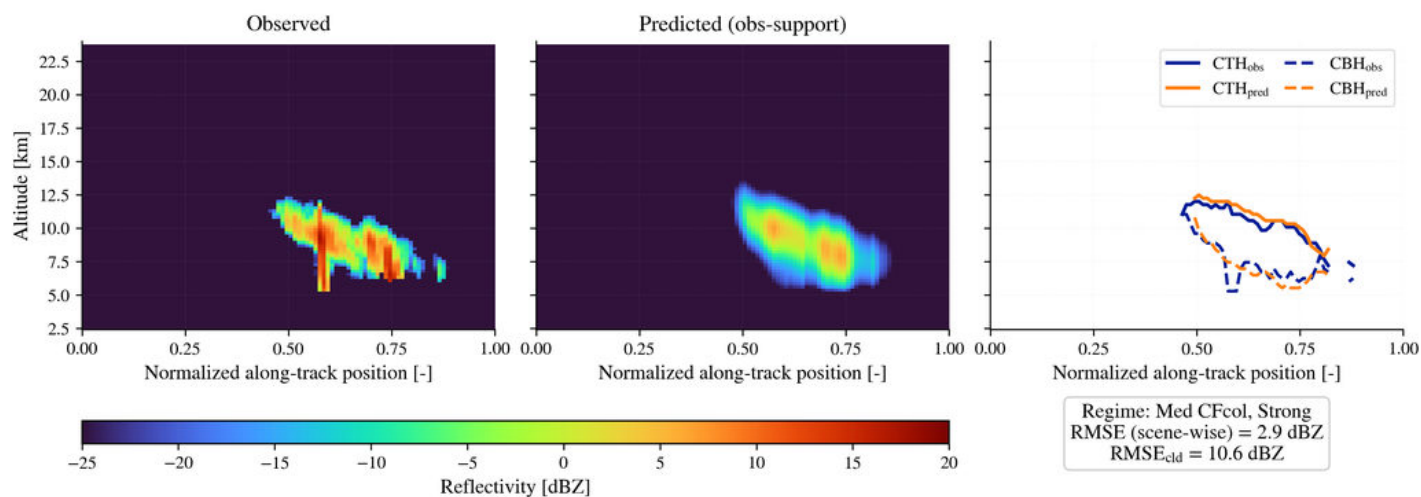


Figure S87. Low CFcol, Strong; observed CFcol = 0.143; maximum observed reflectivity = 15.0 dBZ.

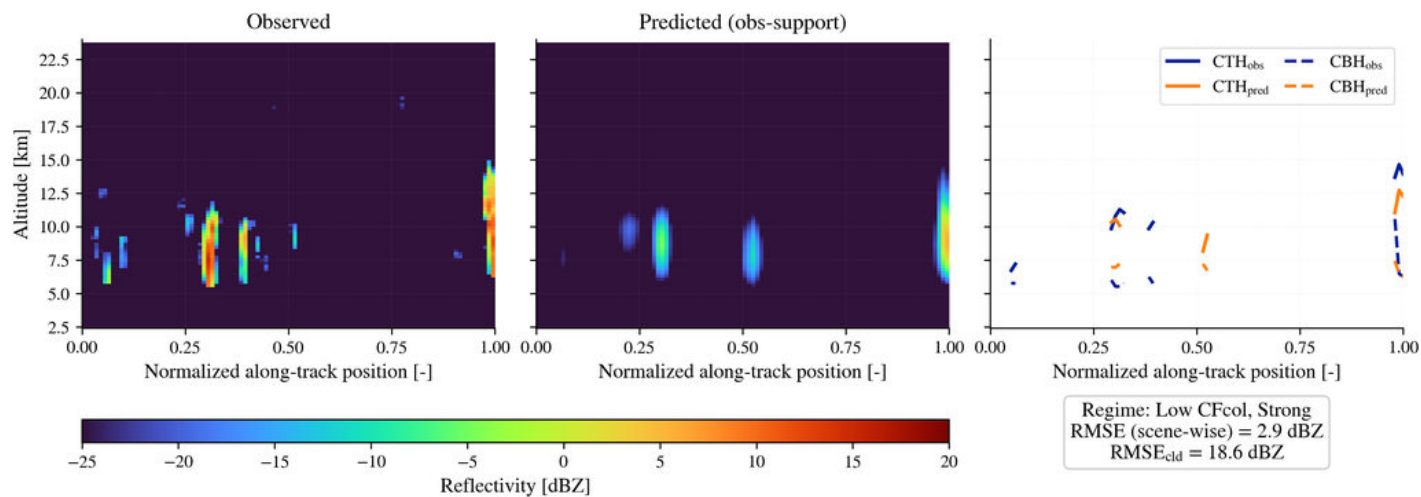


Figure S88. Med CFcol, Weak; observed CFcol = 0.580; maximum observed reflectivity = 3.9 dBZ.

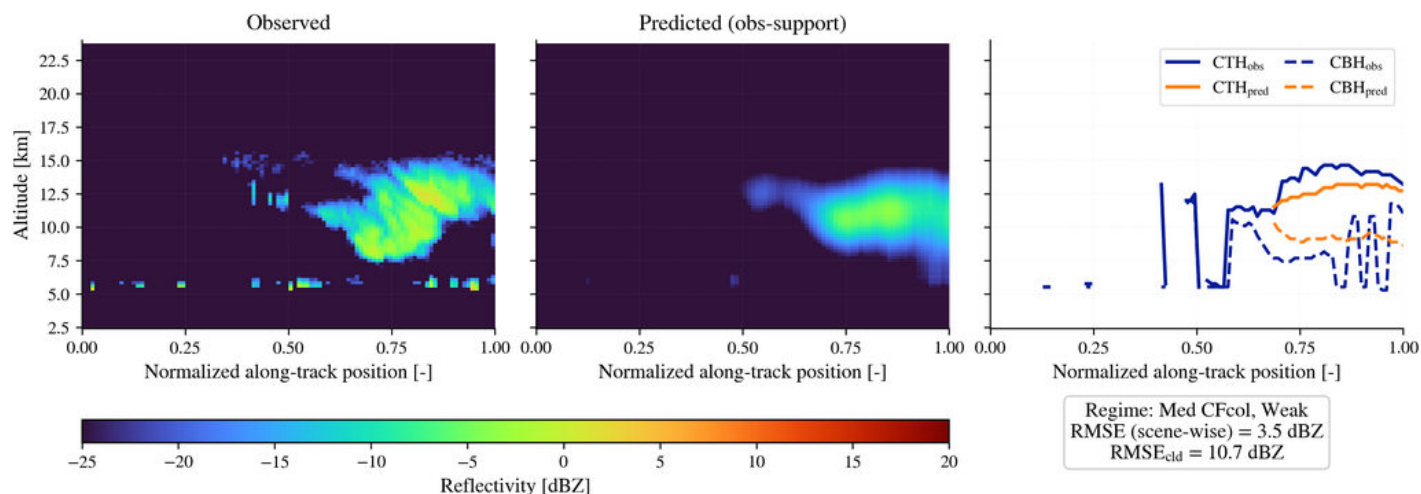


Figure S89. Low CFcol, Weak; observed CFcol = 0.181; maximum observed reflectivity = 4.9 dBZ.

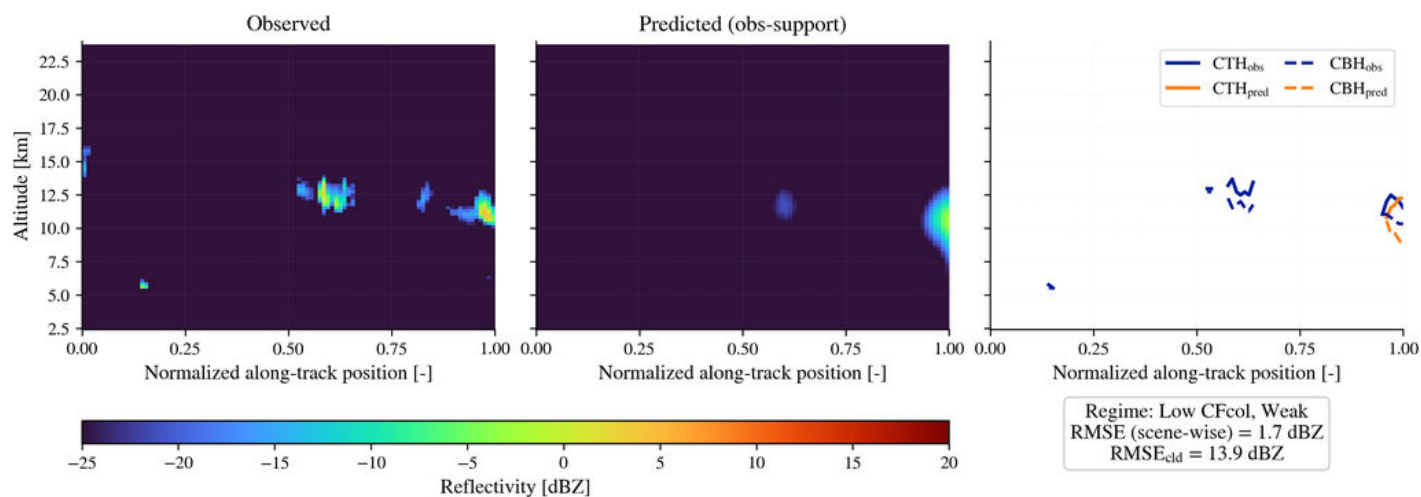


Figure S90. Low CFcol, Weak; observed CFcol = 0.142; maximum observed reflectivity = -4.5 dBZ.

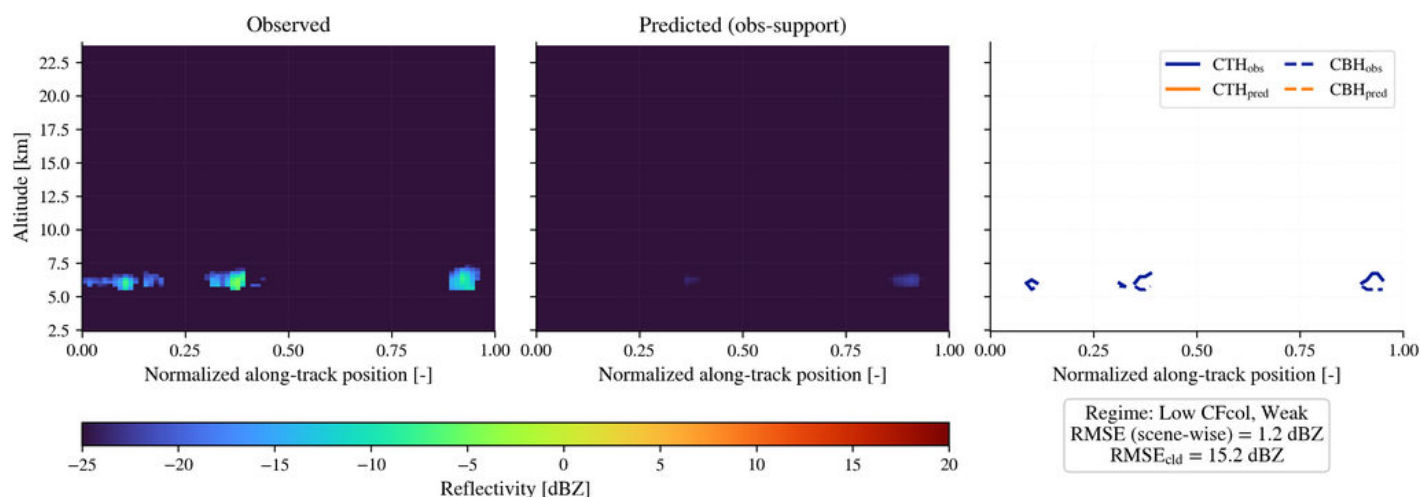


Figure S91. Med CFcol, Strong; observed CFcol = 0.559; maximum observed reflectivity = 8.0 dBZ.

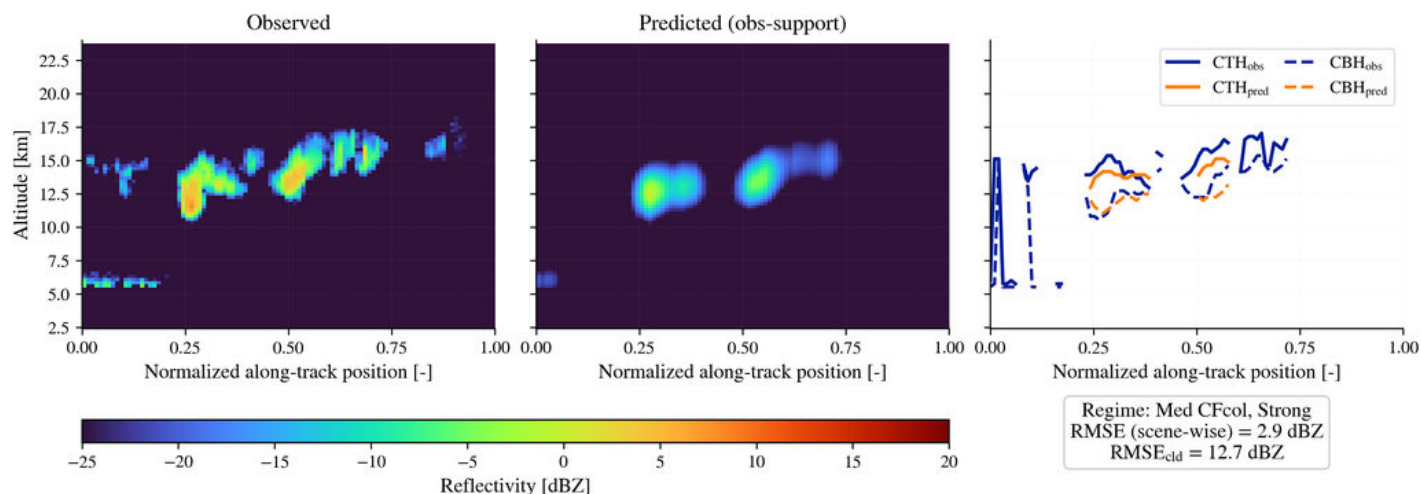


Figure S92. Low CFcol, Strong; observed CFcol = 0.134; maximum observed reflectivity = 8.0 dBZ.

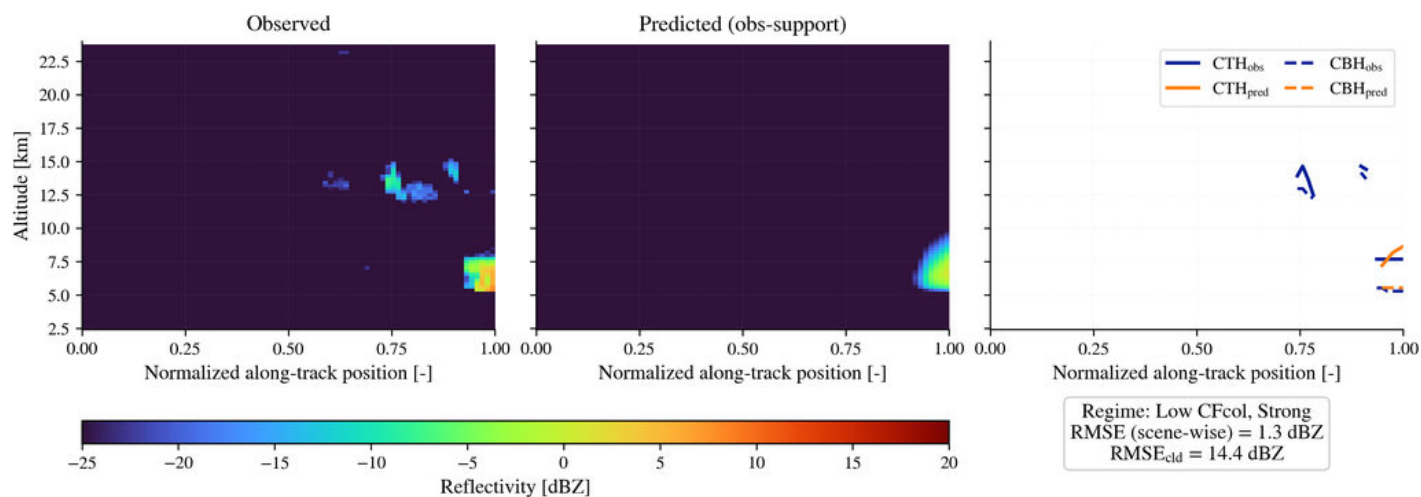


Figure S93. High CFcol, Strong; observed CFcol = 0.607; maximum observed reflectivity = 14.8 dBZ.

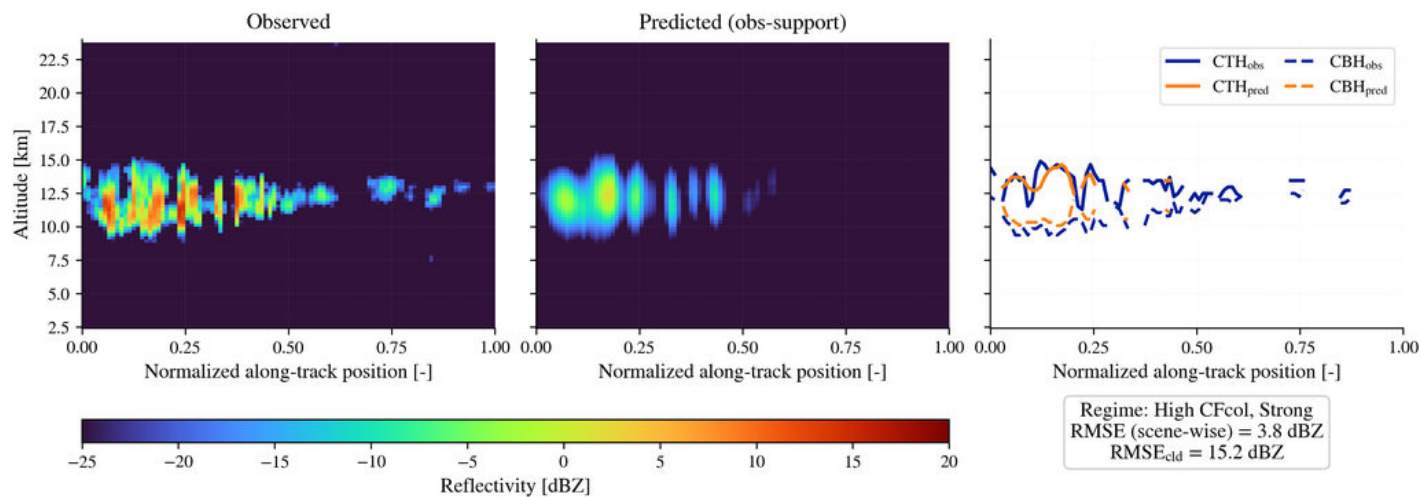


Figure S94. High CFcol, Weak; observed CFcol = 0.768; maximum observed reflectivity = 3.8 dBZ.

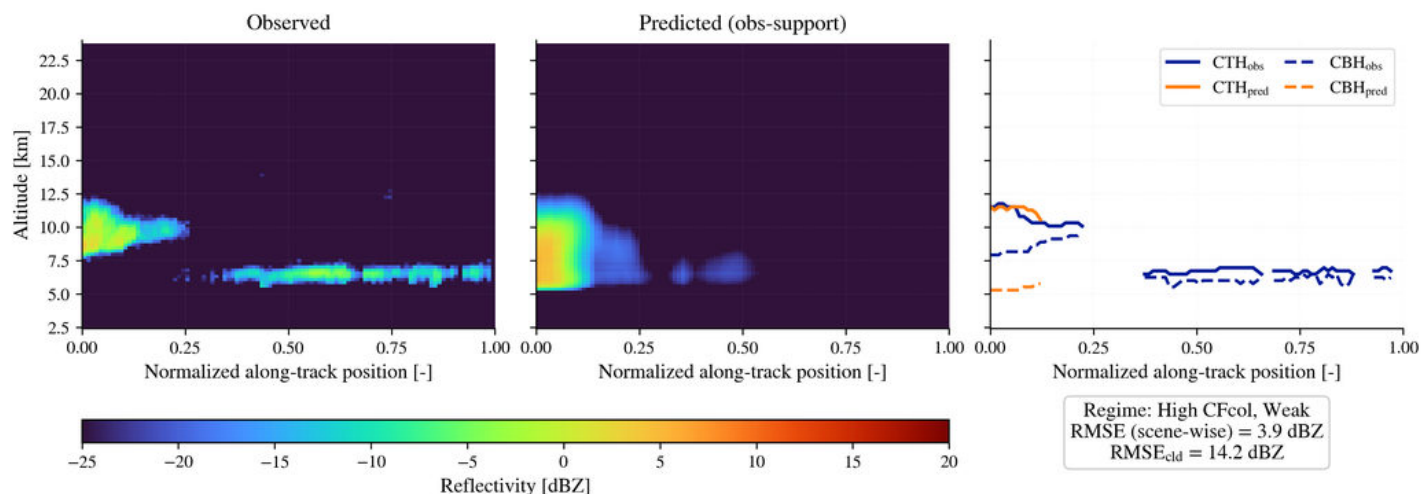


Figure S95. Med CFcol, Weak; observed CFcol = 0.548; maximum observed reflectivity = 1.0 dBZ.

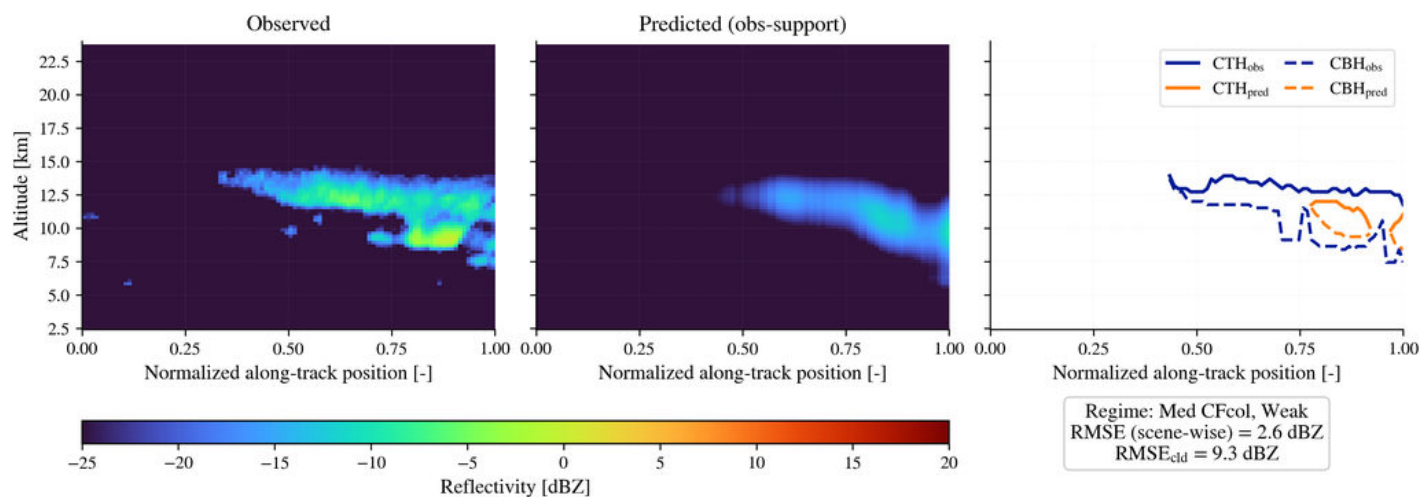


Figure S96. Low CFcol, Weak; observed CFcol = 0.116; maximum observed reflectivity = -0.1 dBZ.

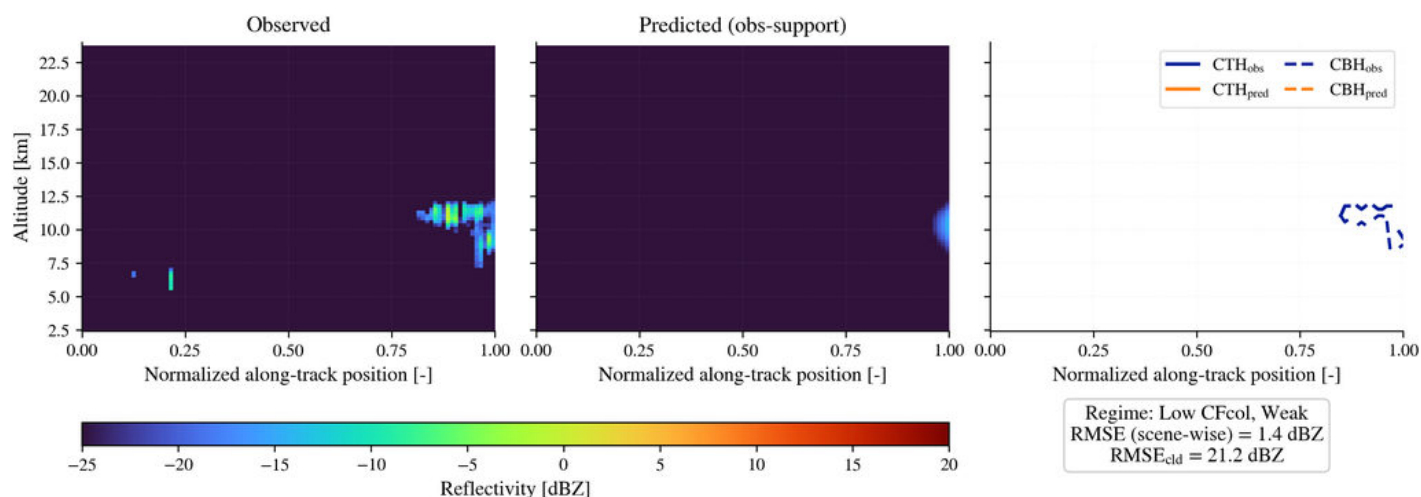


Figure S97. Med CFcol, Strong; observed CFcol = 0.496; maximum observed reflectivity = 9.7 dBZ.

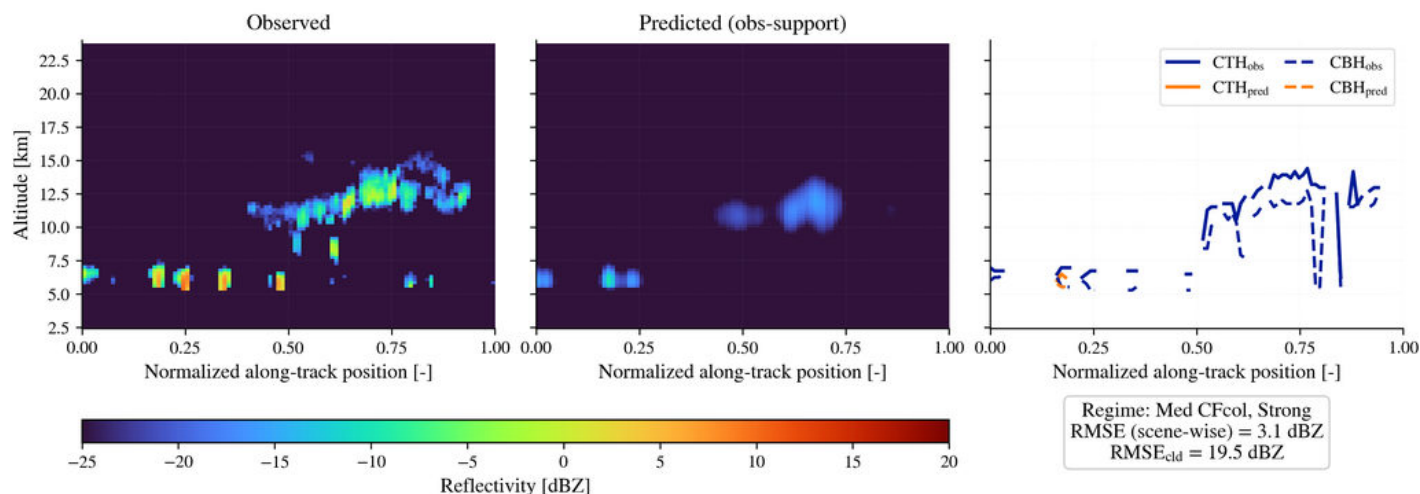


Figure S98. High CFcol, Strong; observed CFcol = 0.823; maximum observed reflectivity = 20.0 dBZ.

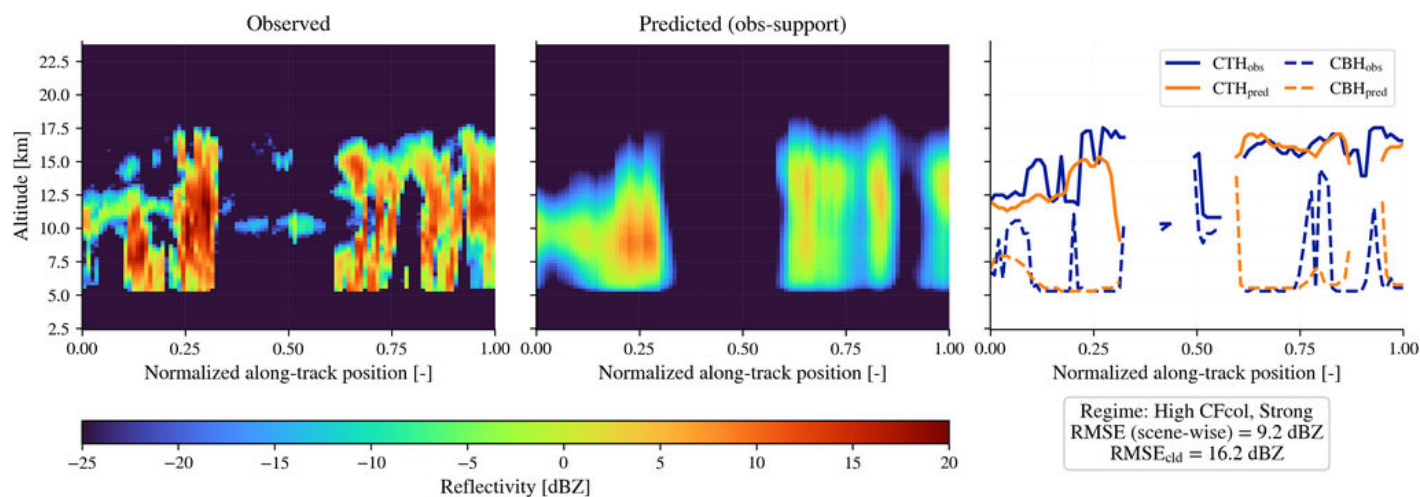


Figure S99. Low CFcol, Strong; observed CFcol = 0.110; maximum observed reflectivity = 18.6 dBZ.

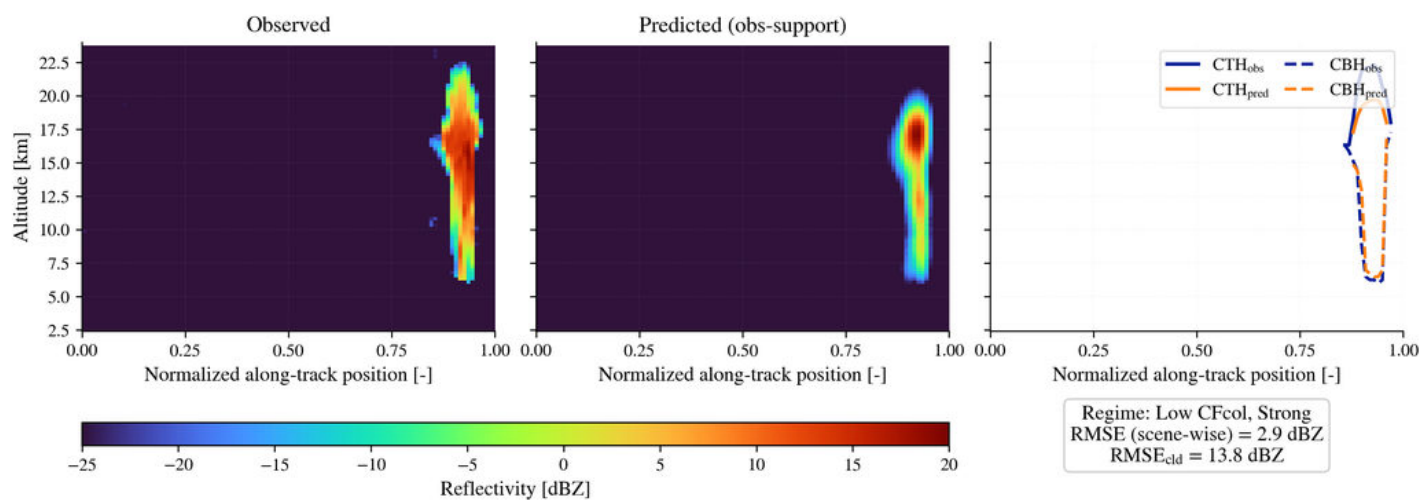


Figure S100. High CFcol, Weak; observed CFcol = 1.000; maximum observed reflectivity = 4.8 dBZ.

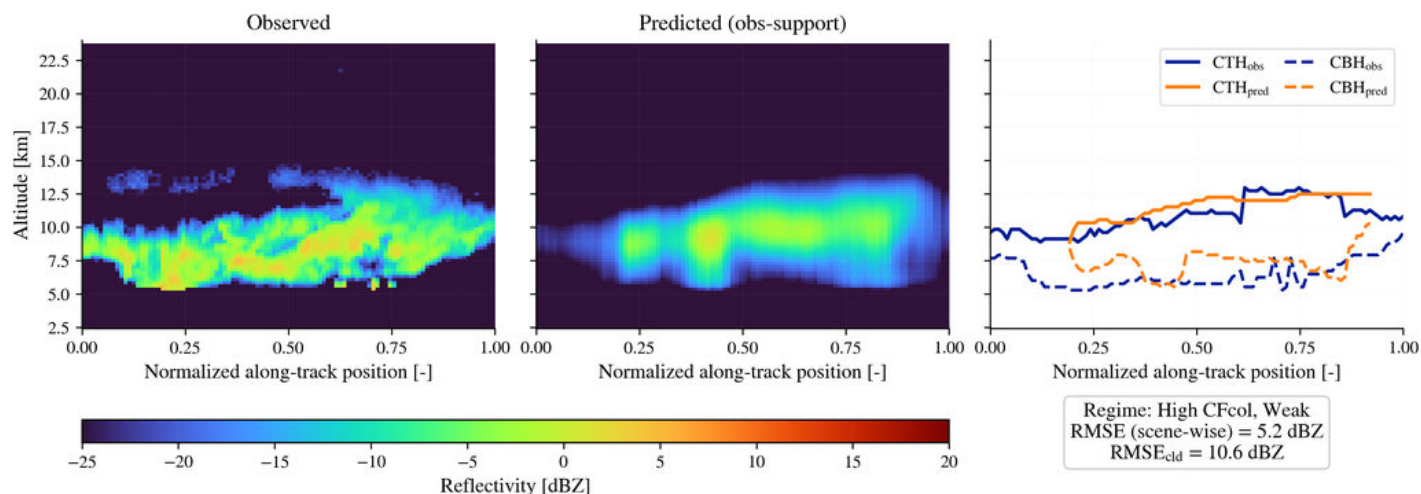


Figure S101. High CFcol, Weak; observed CFcol = 0.879; maximum observed reflectivity = 4.7 dBZ.

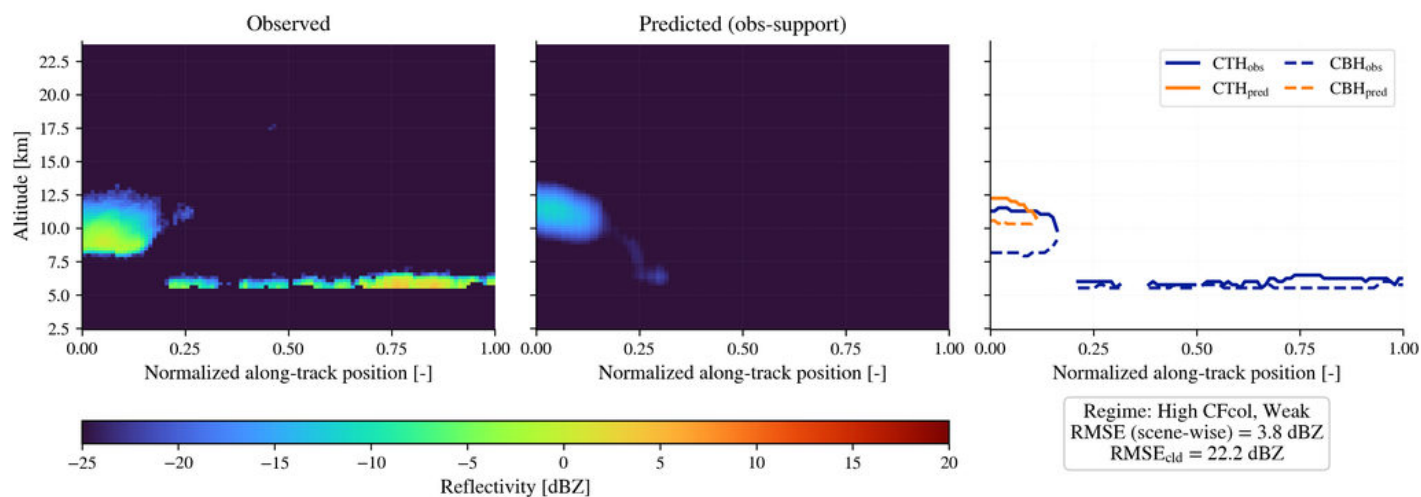


Figure S102. Low CFcol, Weak; observed CFcol = 0.169; maximum observed reflectivity = -1.0 dBZ.

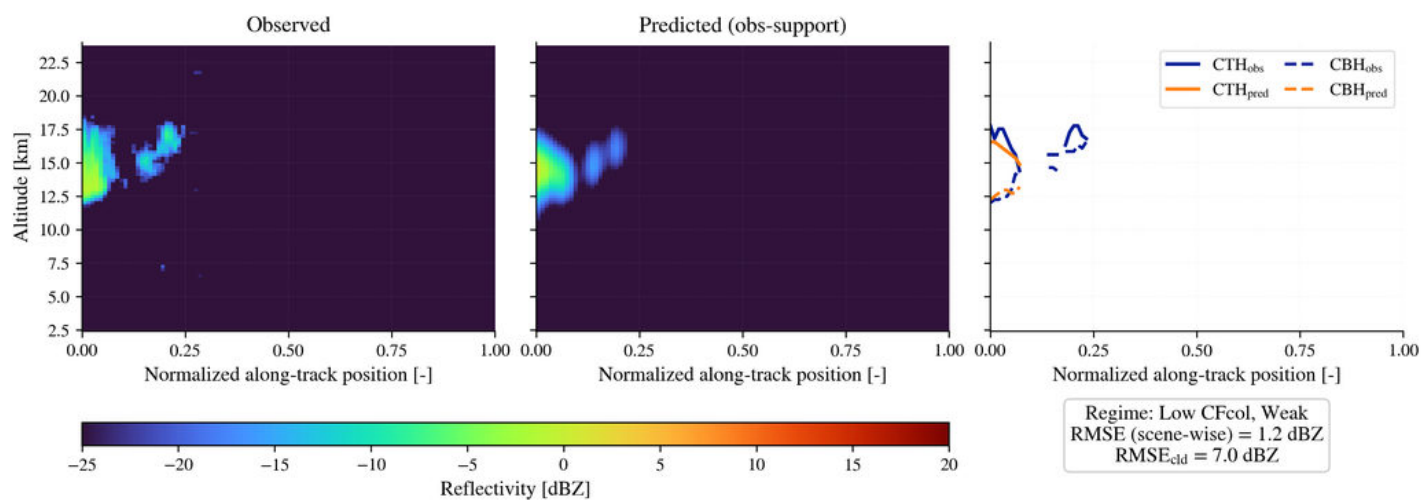


Figure S103. Med CFcol, Weak; observed CFcol = 0.504; maximum observed reflectivity = 2.2 dBZ.

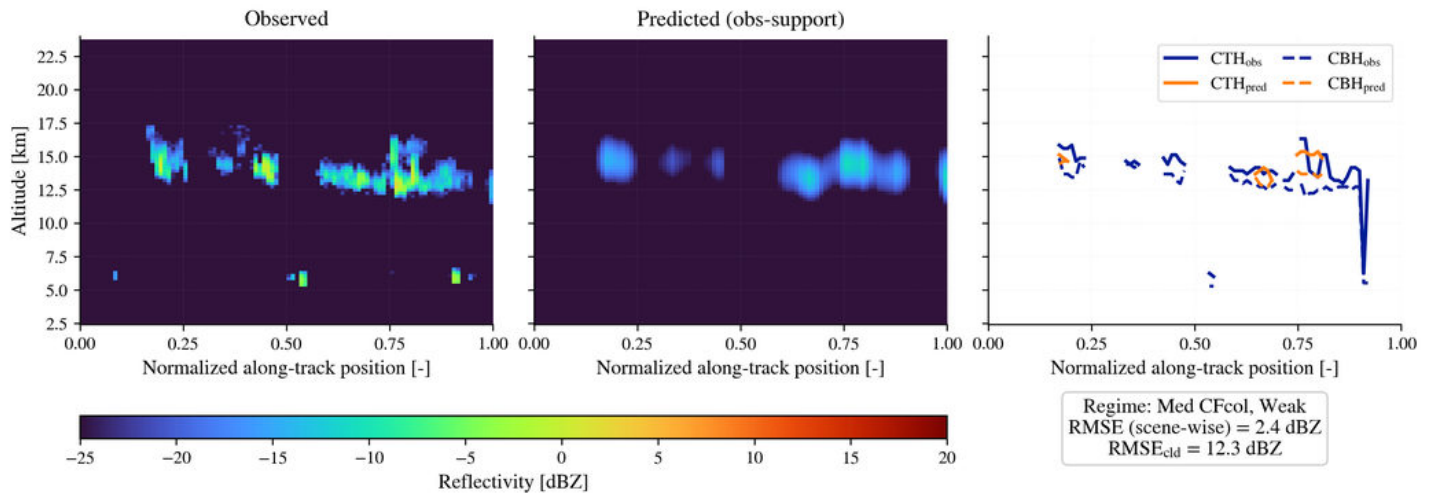


Figure S104. Low CFcol, Weak; observed CFcol = 0.080; maximum observed reflectivity = 4.2 dBZ.

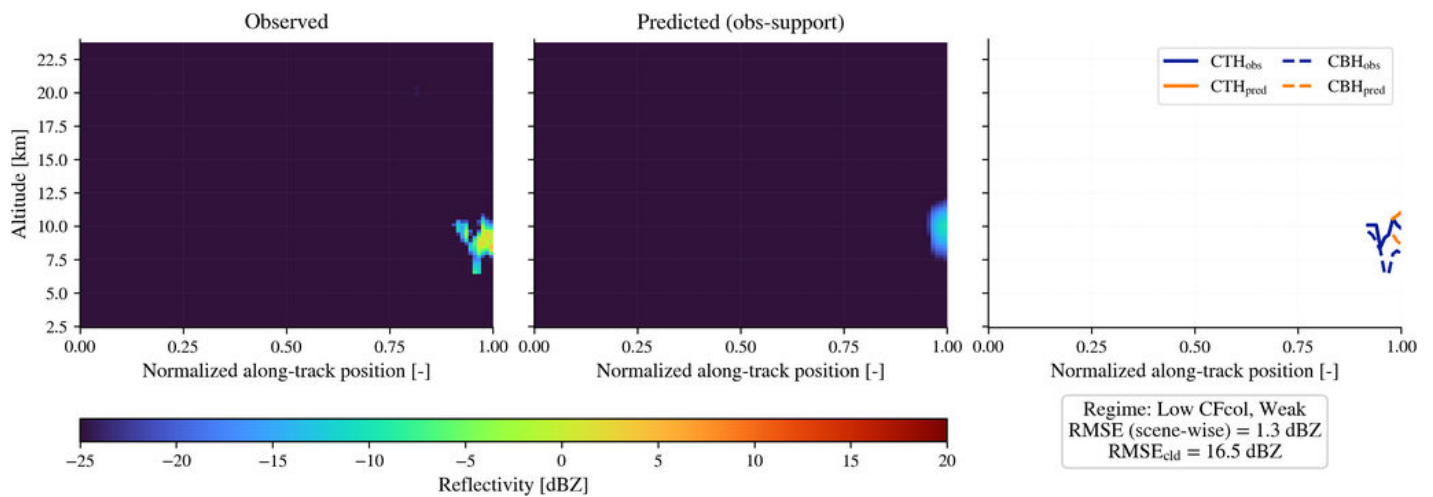


Figure S105. High CFcol, Weak; observed CFcol = 1.000; maximum observed reflectivity = -1.0 dBZ.

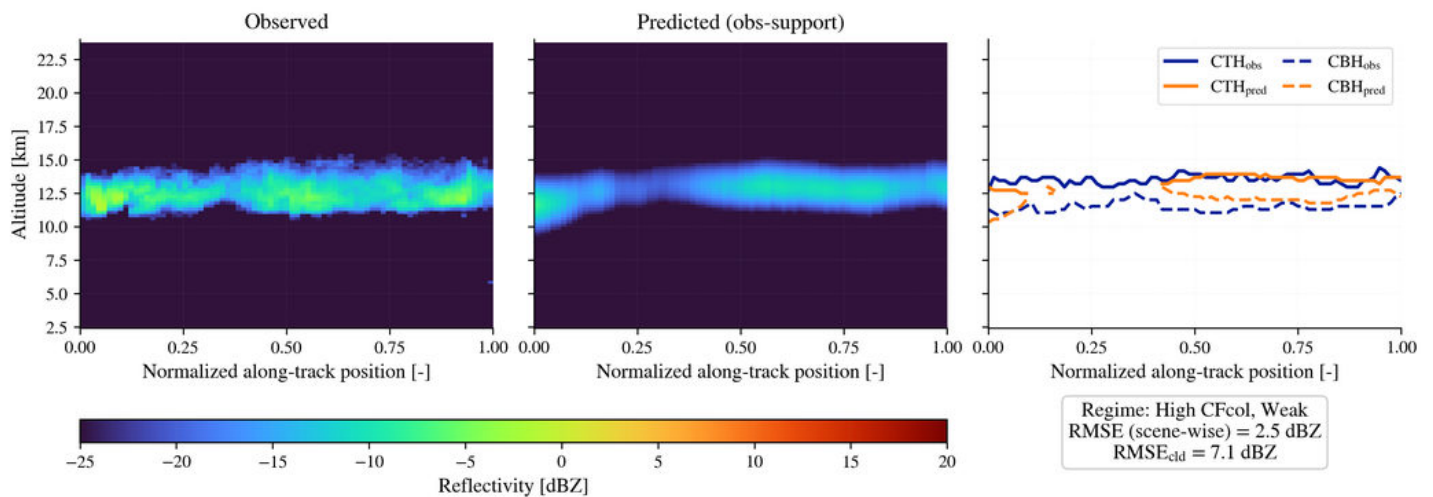


Figure S106. Med CFcol, Strong; observed CFcol = 0.458; maximum observed reflectivity = 15.0 dBZ.

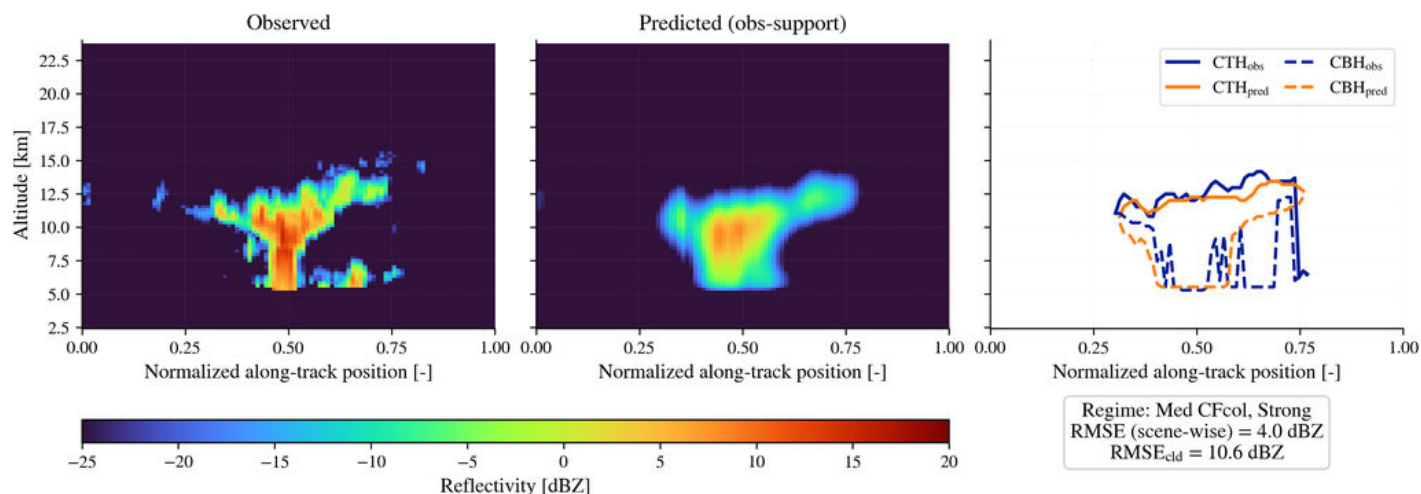


Figure S107. Low CFcol, Strong; observed CFcol = 0.161; maximum observed reflectivity = 18.8 dBZ.

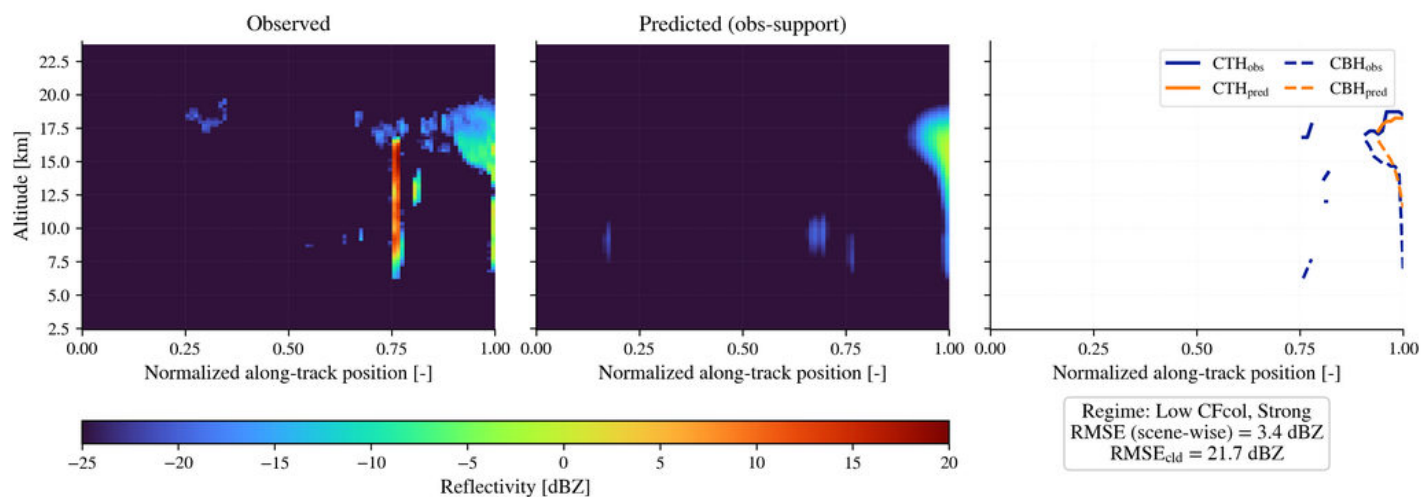


Figure S108. Low CFcol, Strong; observed CFcol = 0.143; maximum observed reflectivity = 16.8 dBZ.

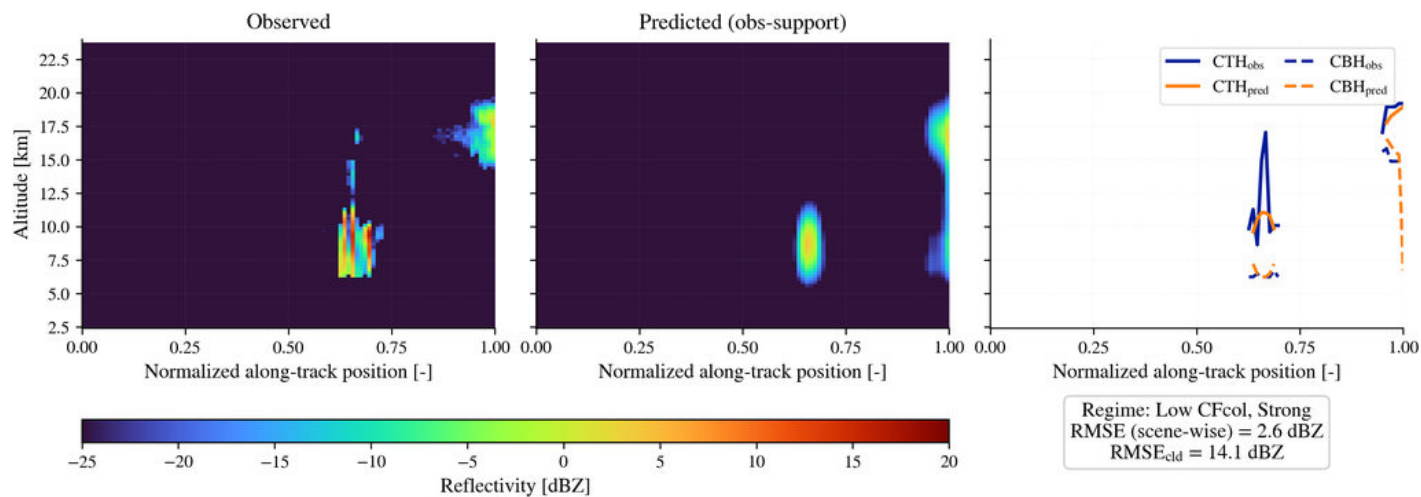


Figure S109. Med CFcol, Weak; observed CFcol = 0.357; maximum observed reflectivity = 2.0 dBZ.

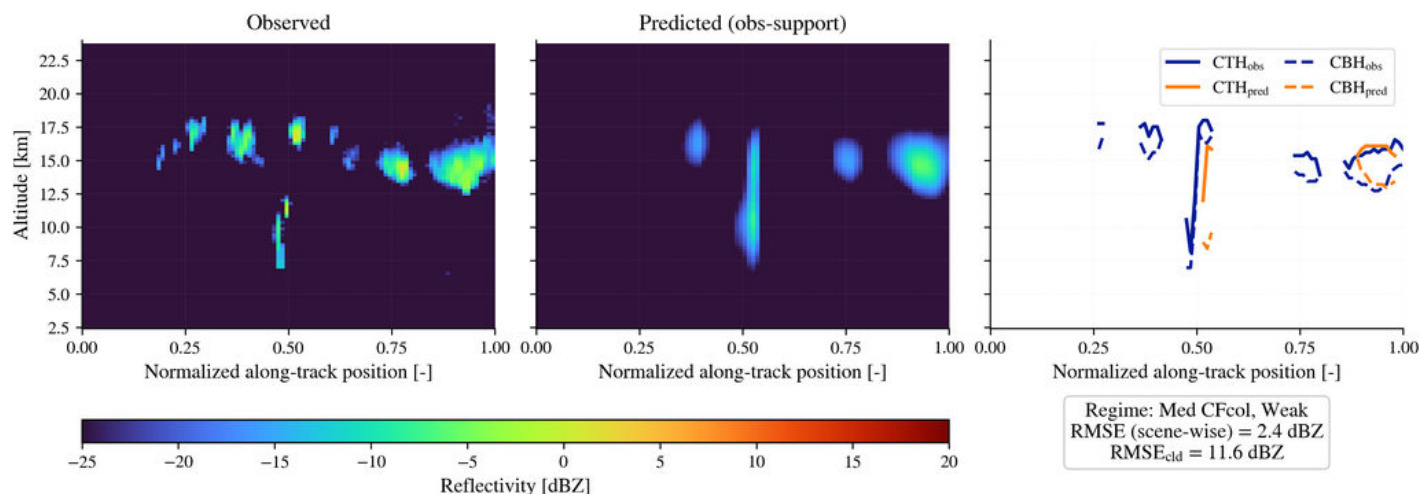


Figure S110. High CFcol, Strong; observed CFcol = 0.700; maximum observed reflectivity = 14.8 dBZ.

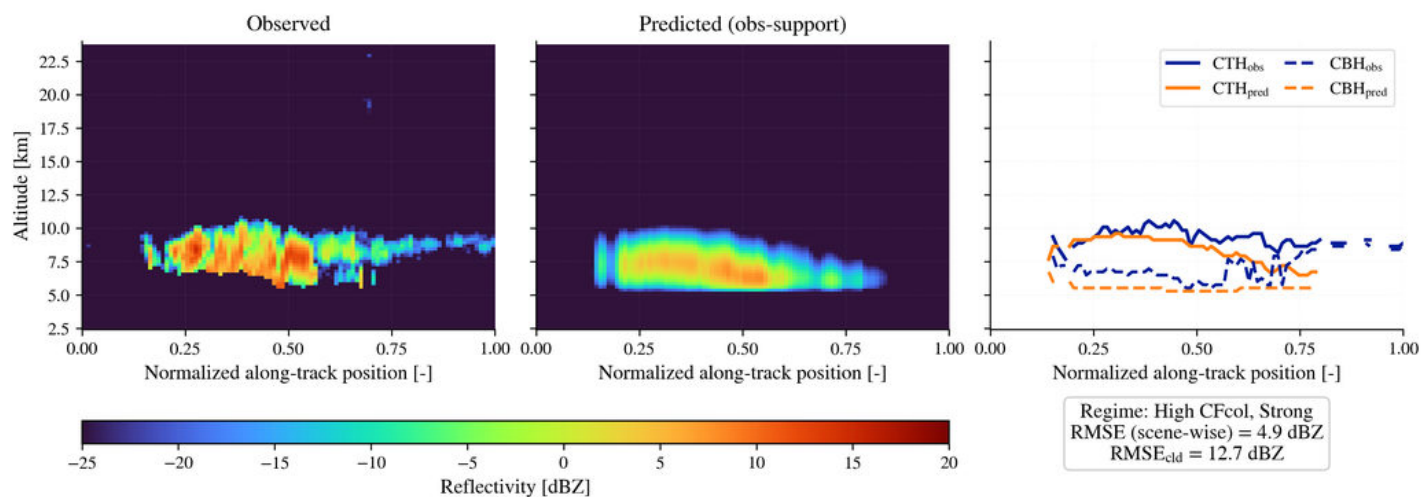


Figure S111. Low CFcol, Strong; observed CFcol = 0.161; maximum observed reflectivity = 17.0 dBZ.

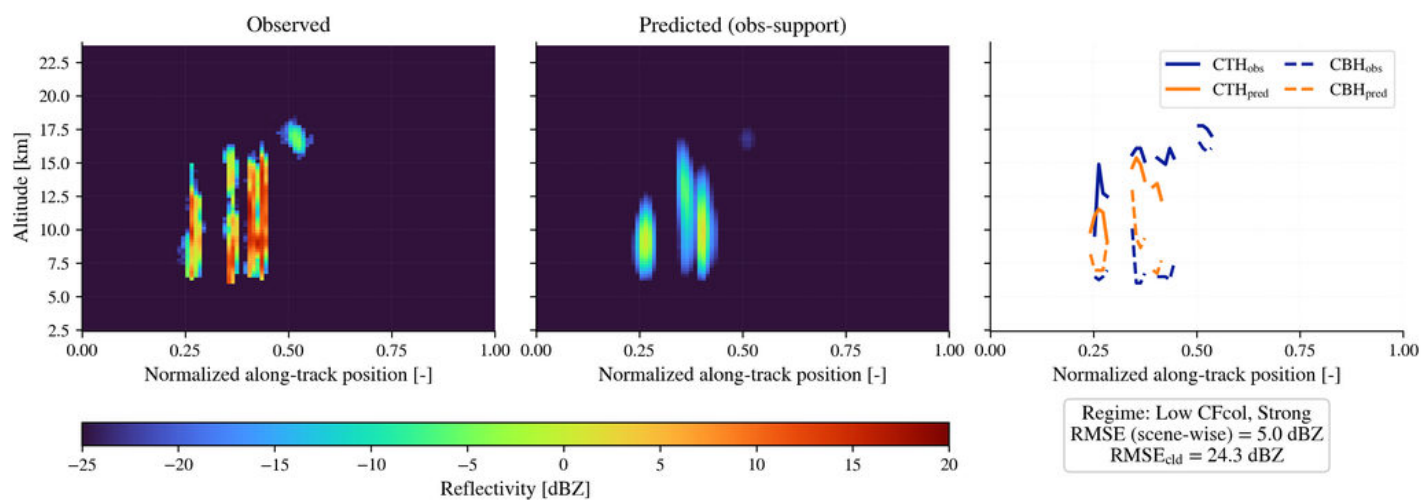


Figure S112. Low CFcol, Weak; observed CFcol = 0.150; maximum observed reflectivity = 1.1 dBZ.

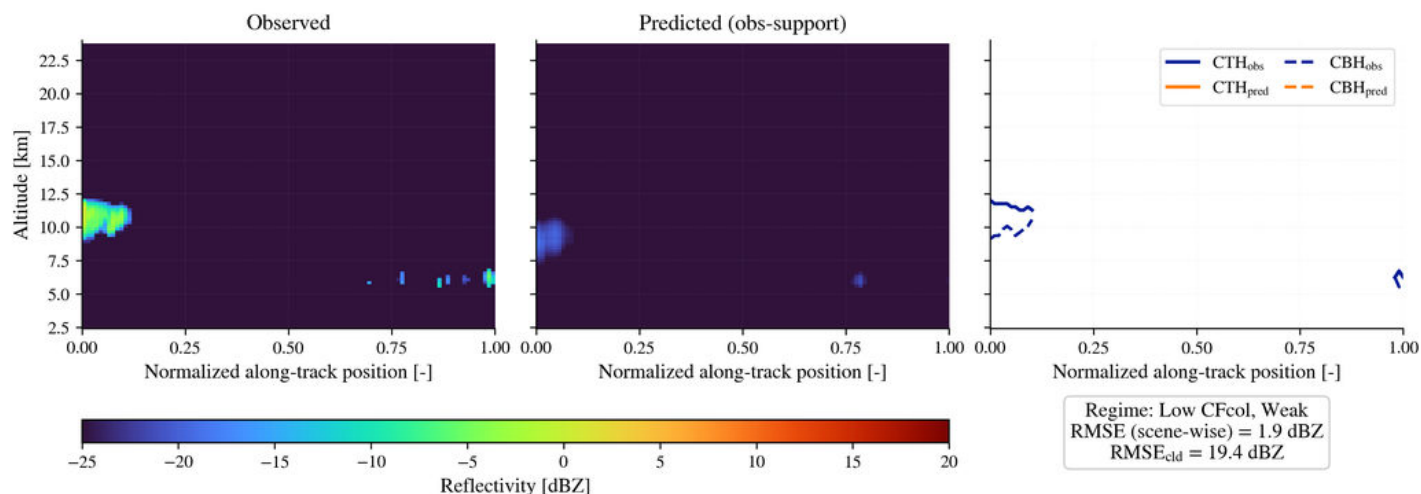


Figure S113. Med CFcol, Weak; observed CFcol = 0.538; maximum observed reflectivity = 0.9 dBZ.

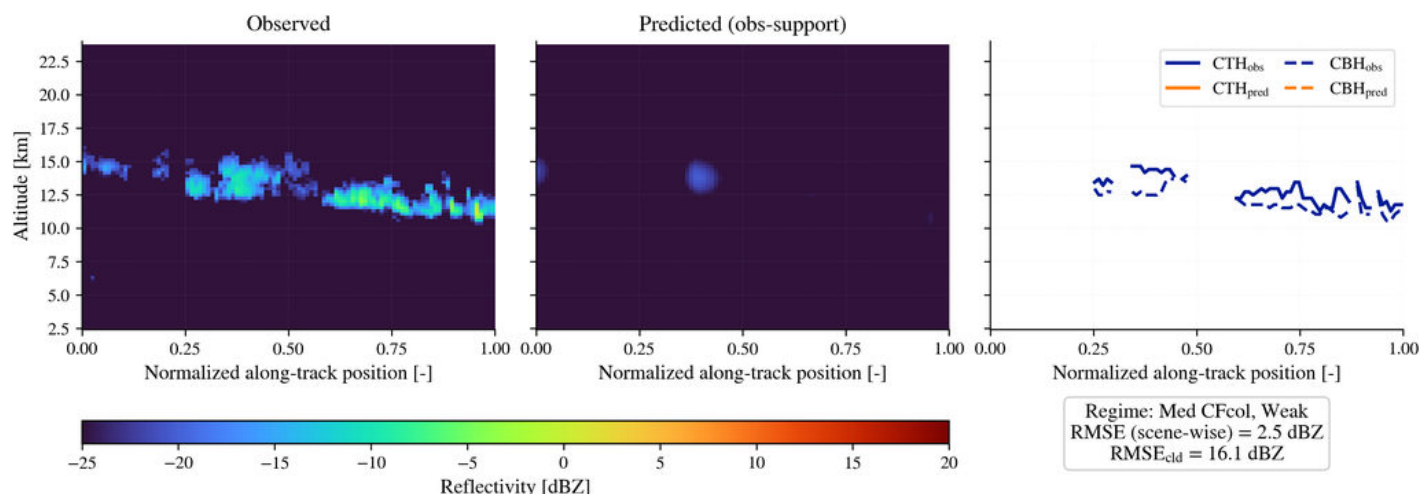


Figure S114. Med CFcol, Strong; observed CFcol = 0.481; maximum observed reflectivity = 10.8 dBZ.

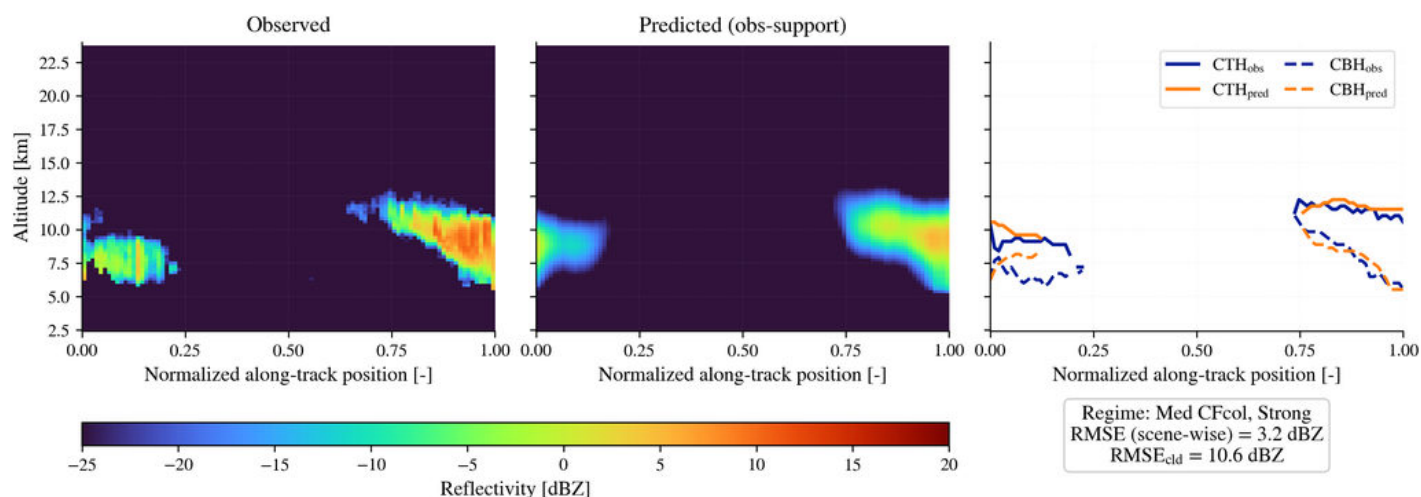


Figure S115. High CFcol, Weak; observed CFcol = 0.930; maximum observed reflectivity = 1.1 dBZ.

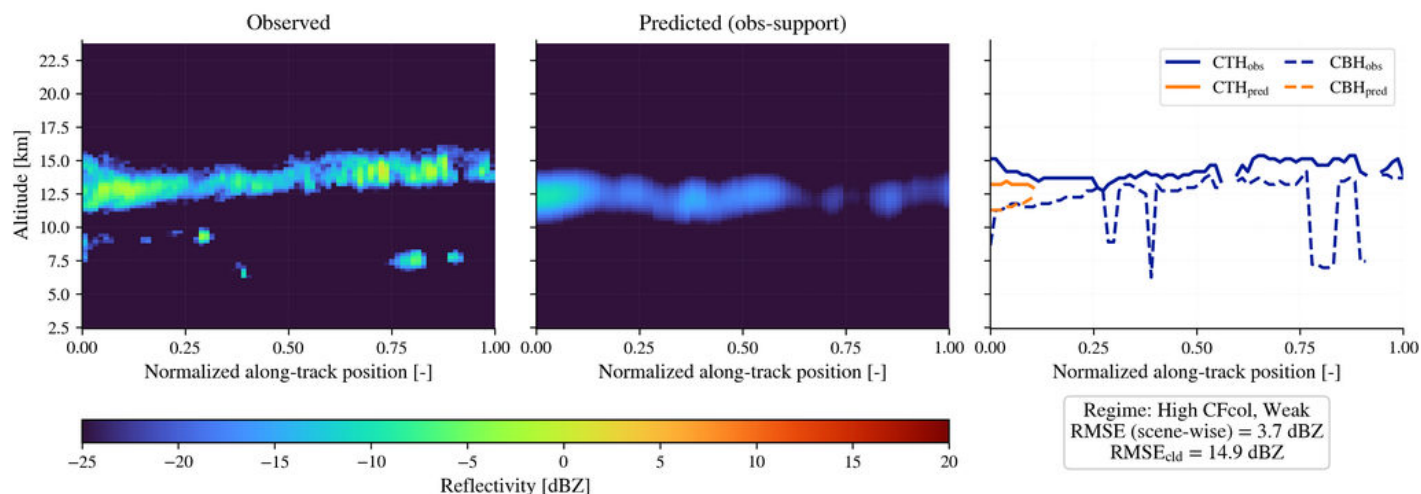


Figure S116. Low CFcol, Weak; observed CFcol = 0.127; maximum observed reflectivity = -4.5 dBZ.

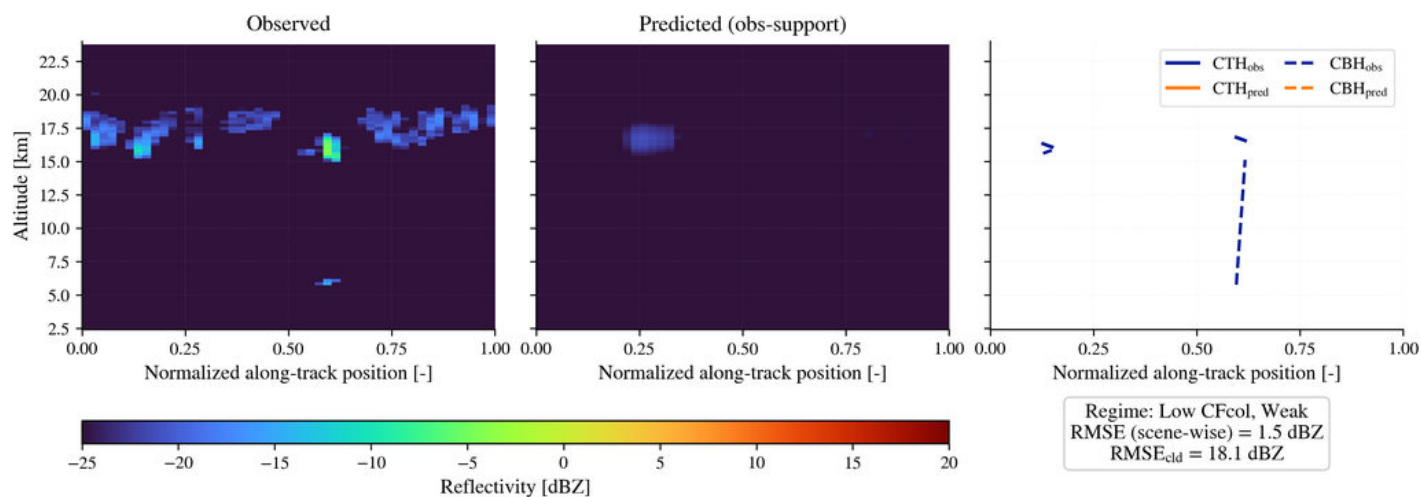


Figure S117. Low CFcol, Strong; observed CFcol = 0.169; maximum observed reflectivity = 16.8 dBZ.

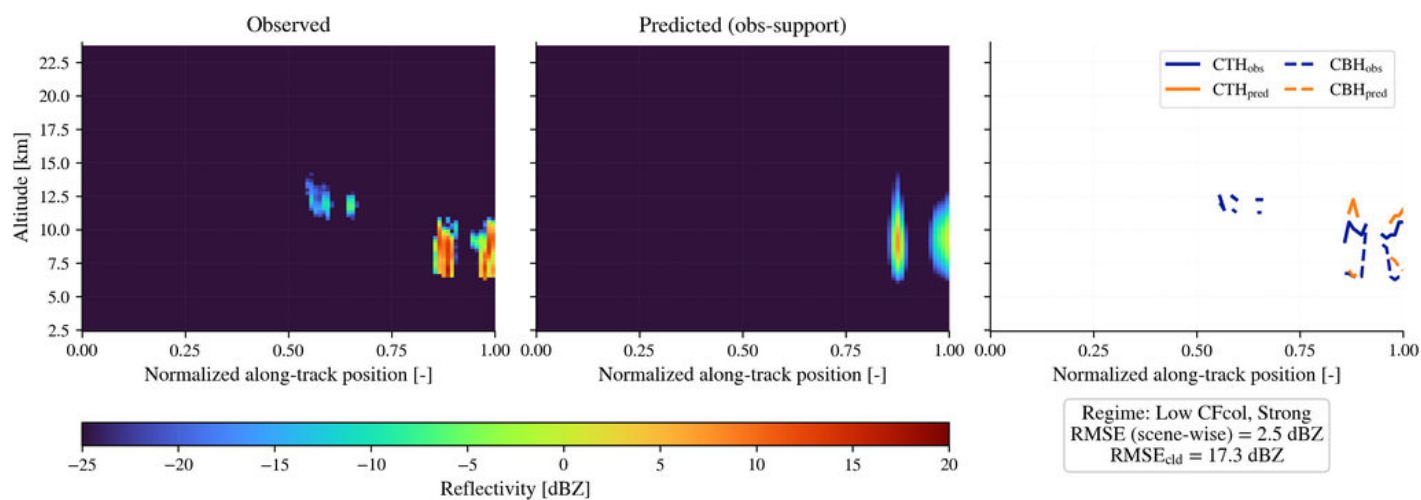


Figure S118. High CFcol, Strong; observed CFcol = 0.893; maximum observed reflectivity = 13.4 dBZ.

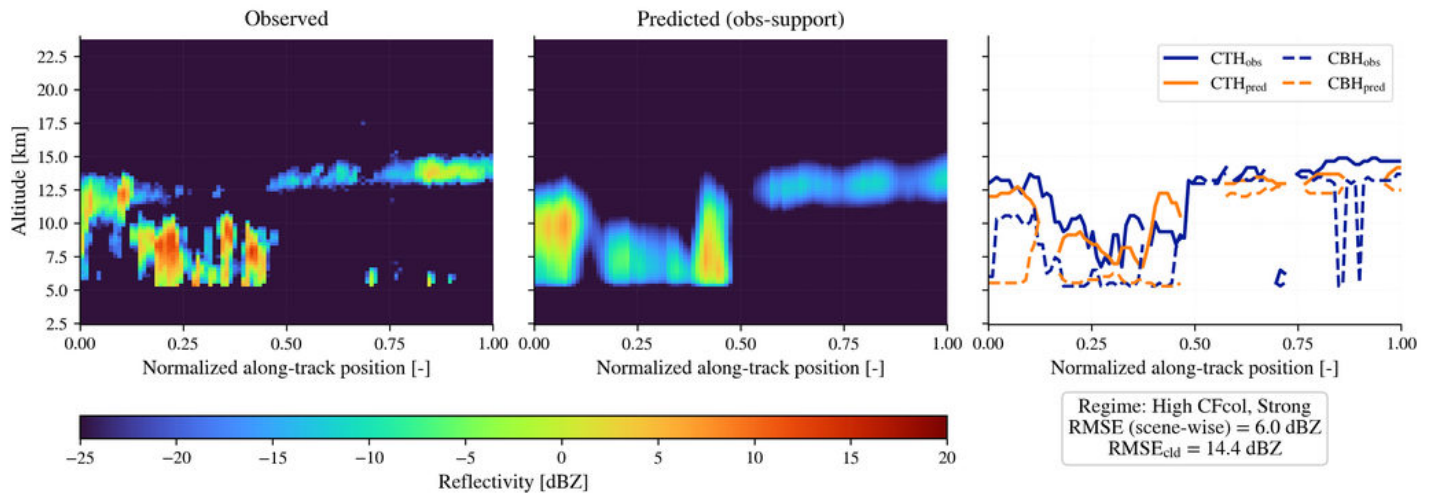


Figure S119. High CFcol, Strong; observed CFcol = 0.656; maximum observed reflectivity = 17.5 dBZ.

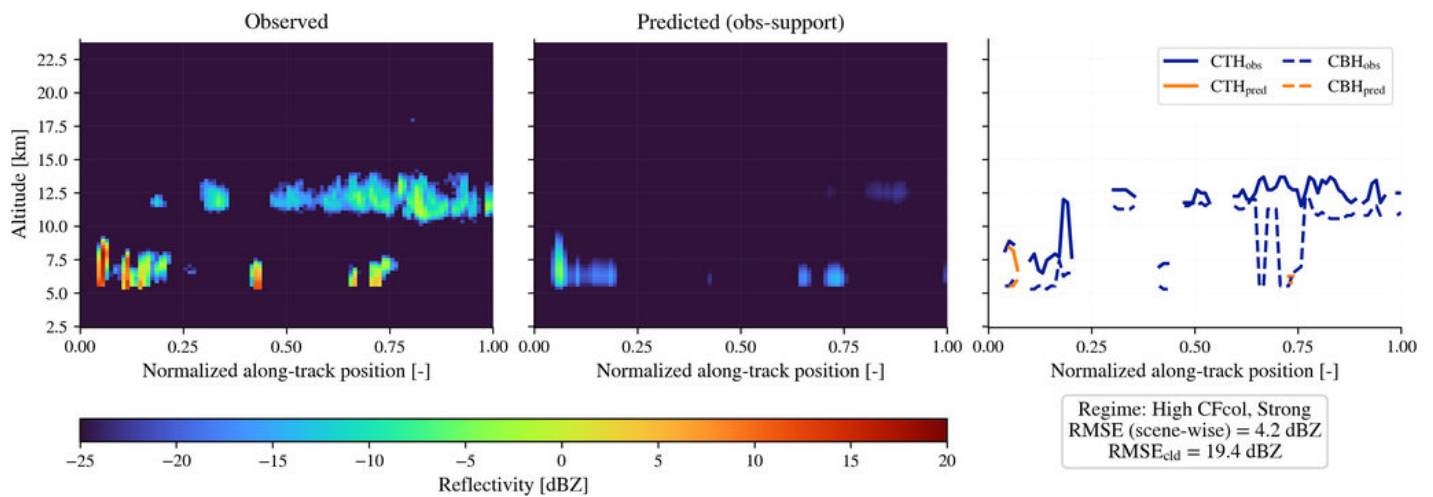


Figure S120. High CFcol, Strong; observed CFcol = 0.977; maximum observed reflectivity = 10.7 dBZ.

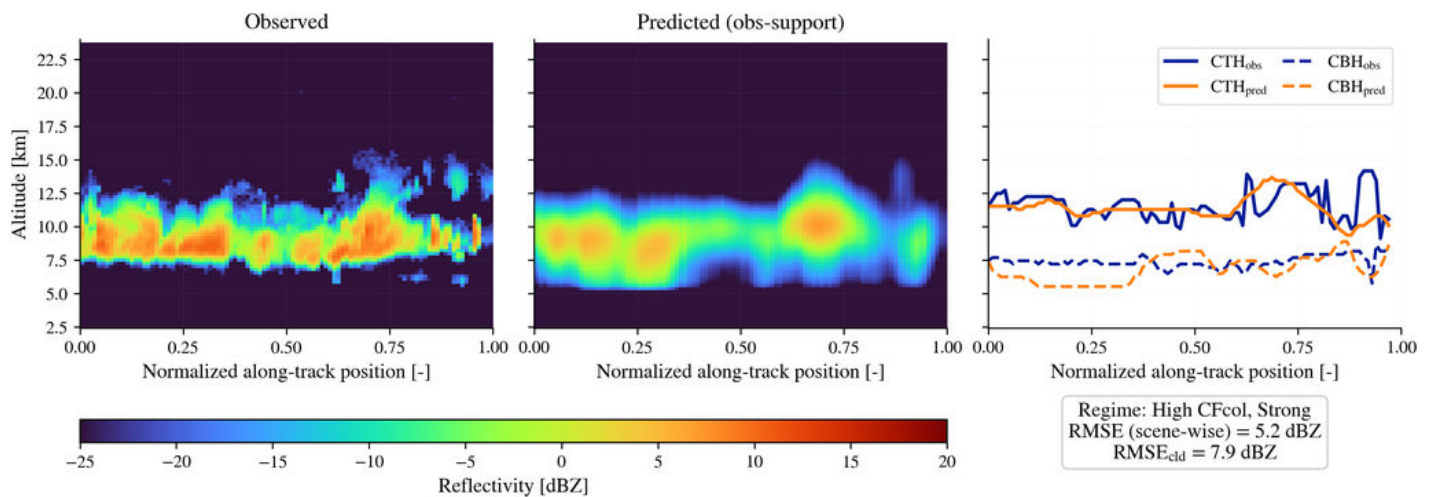


Figure S121. High CFcol, Strong; observed CFcol = 0.768; maximum observed reflectivity = 13.7 dBZ.

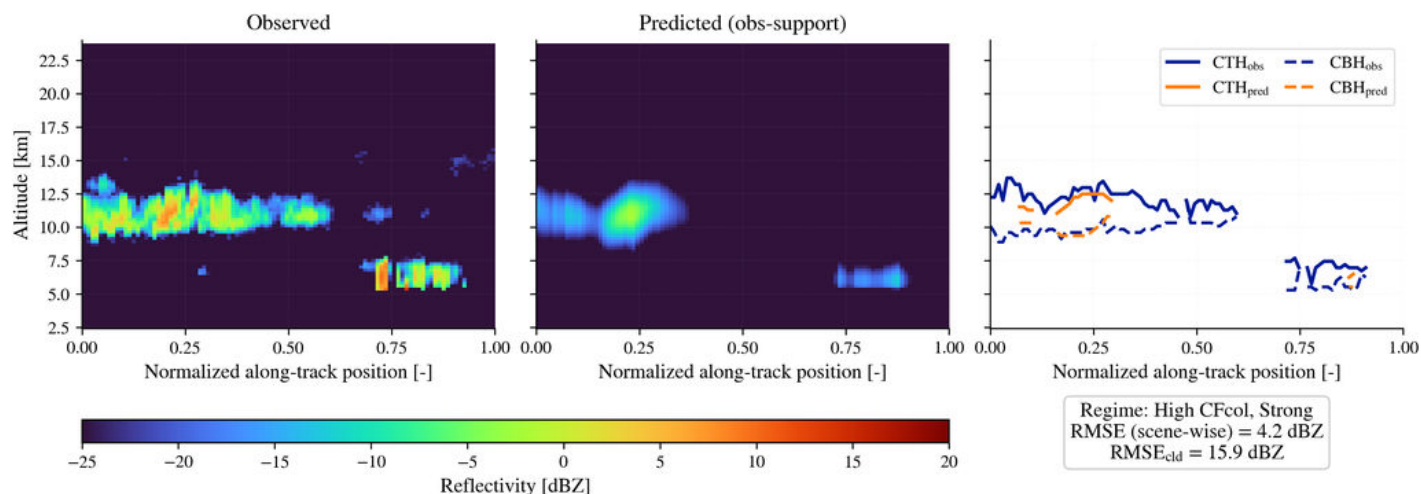


Figure S122. Med CFcol, Strong; observed CFcol = 0.347; maximum observed reflectivity = 14.1 dBZ.

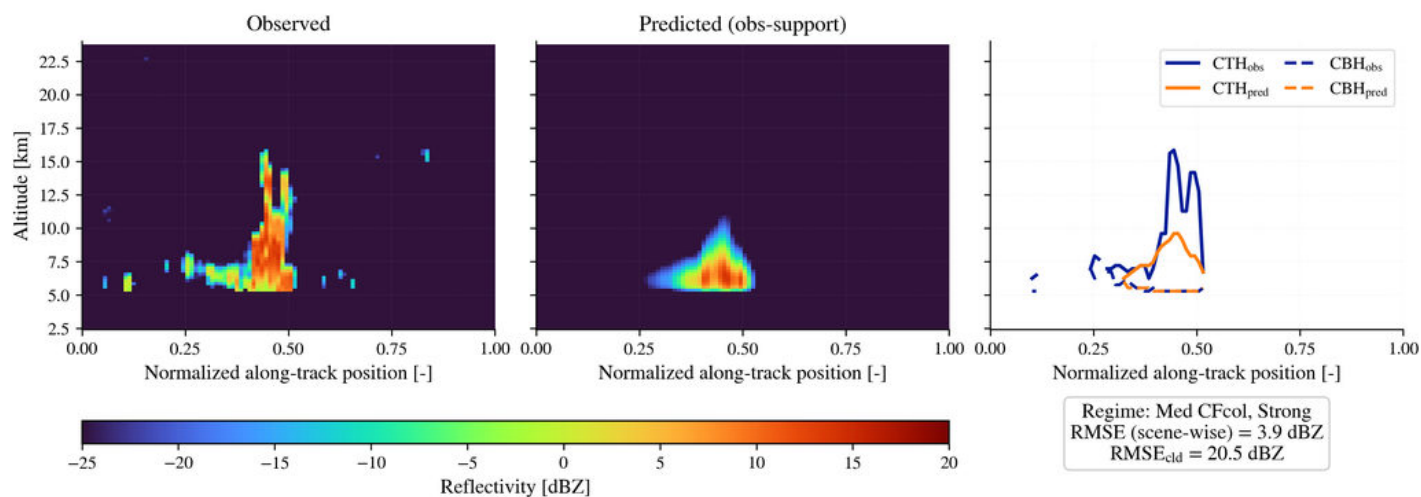


Figure S123. Low CFcol, Weak; observed CFcol = 0.084; maximum observed reflectivity = 3.1 dBZ.

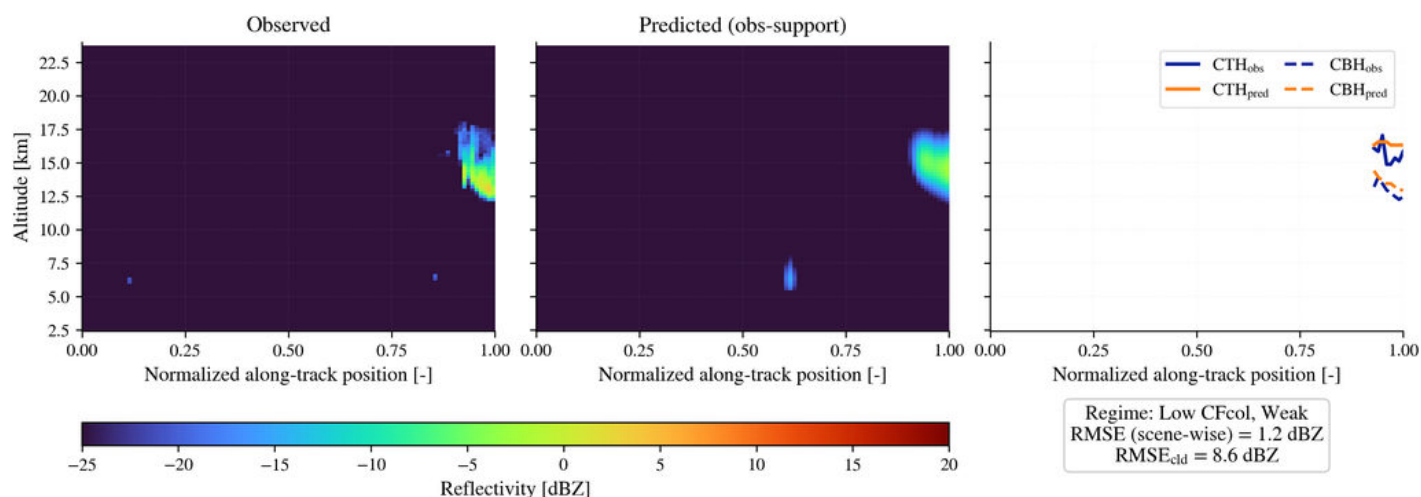


Figure S124. Low CFcol, Weak; observed CFcol = 0.169; maximum observed reflectivity = 2.4 dBZ.

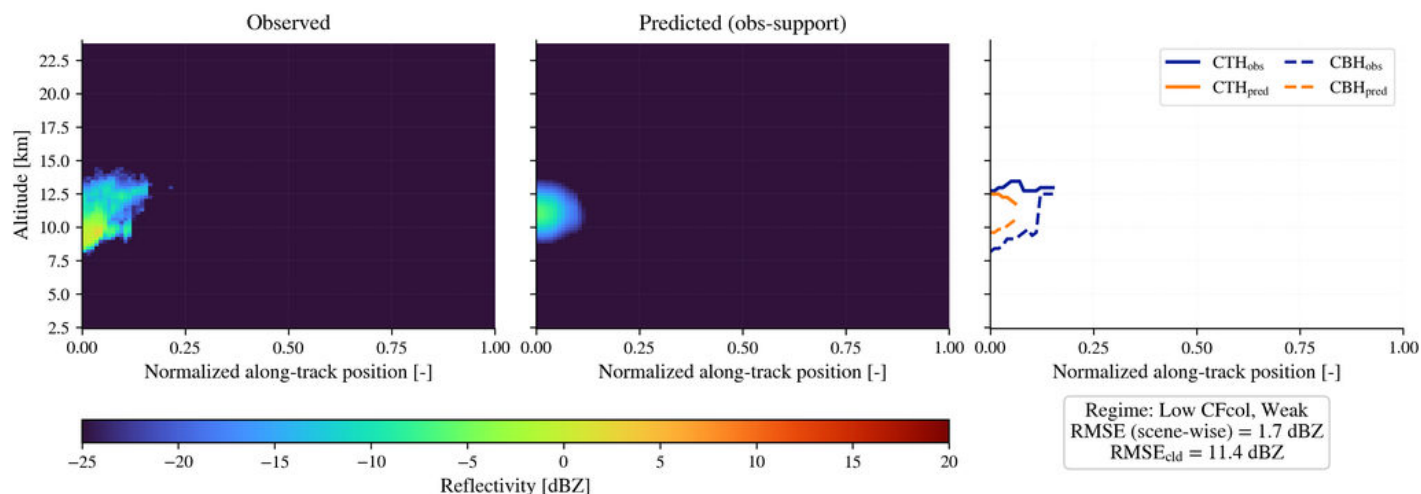


Figure S125. High CFcol, Weak; observed CFcol = 0.674; maximum observed reflectivity = -6.2 dBZ.

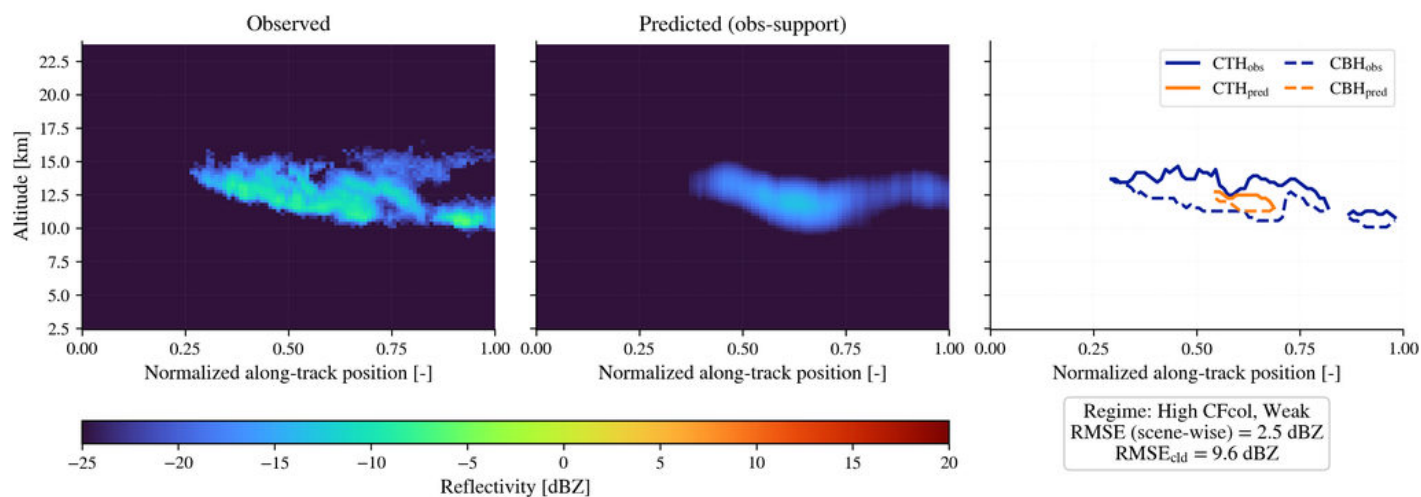


Figure S126. Med CFcol, Strong; observed CFcol = 0.400; maximum observed reflectivity = 12.2 dBZ.

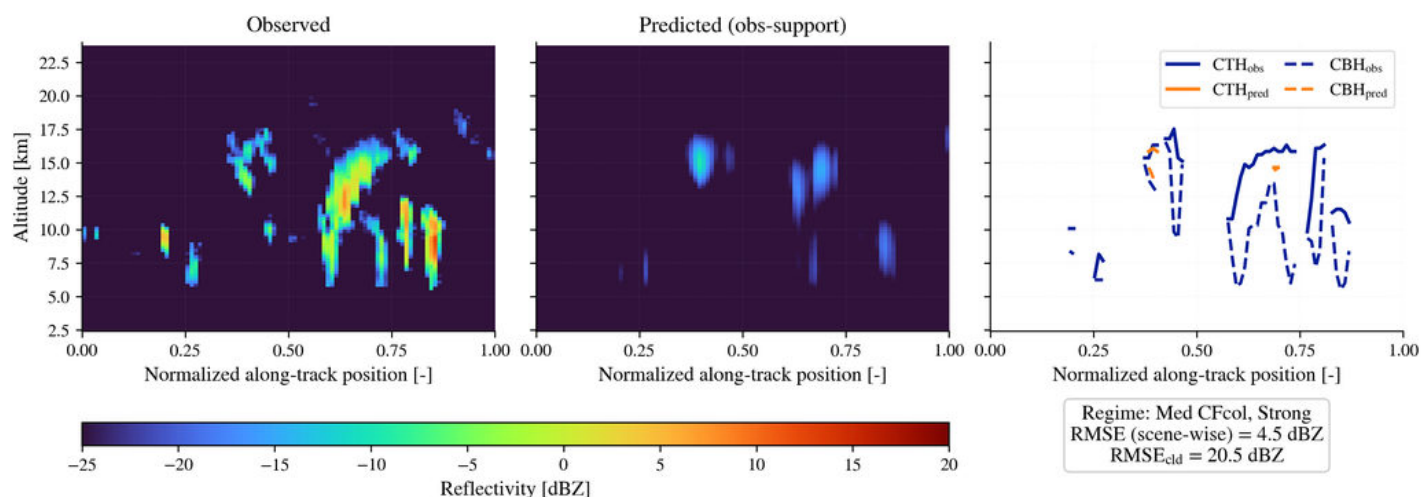


Figure S127. Low CFcol, Weak; observed CFcol = 0.163; maximum observed reflectivity = -1.1 dBZ.

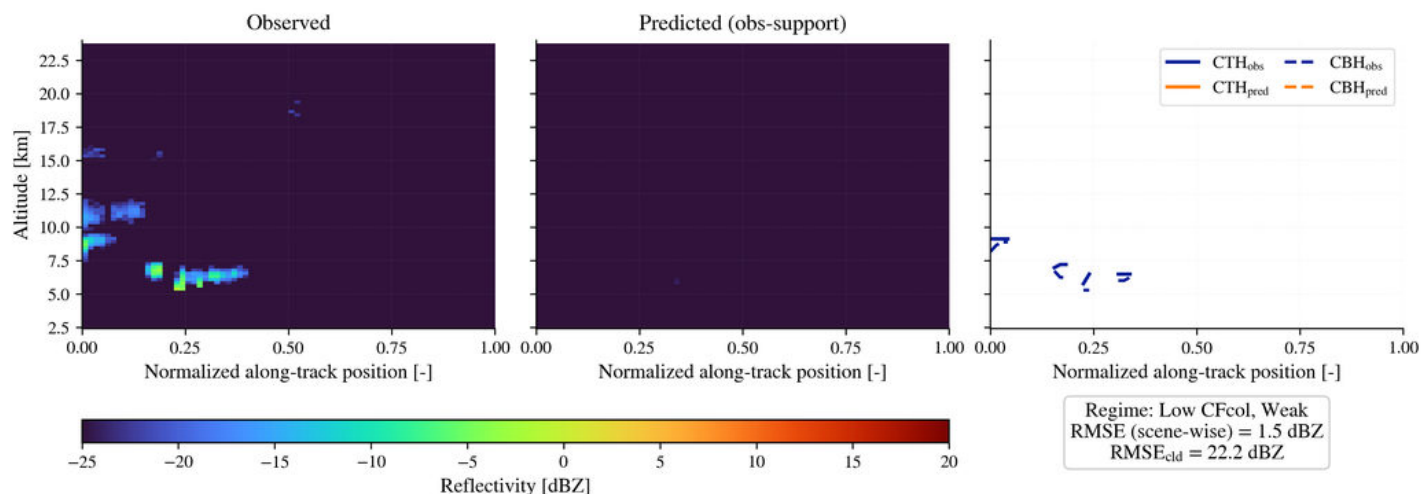


Figure S128. Low CFcol, Strong; observed CFcol = 0.158; maximum observed reflectivity = 18.0 dBZ.

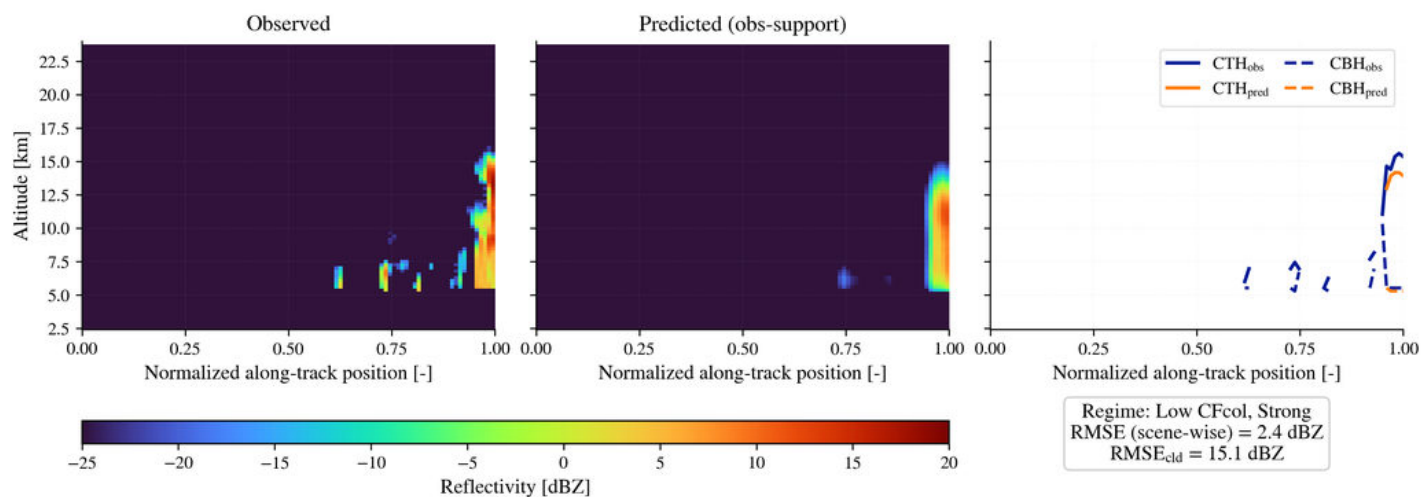


Figure S129. High CFcol, Weak; observed CFcol = 0.626; maximum observed reflectivity = 3.4 dBZ.

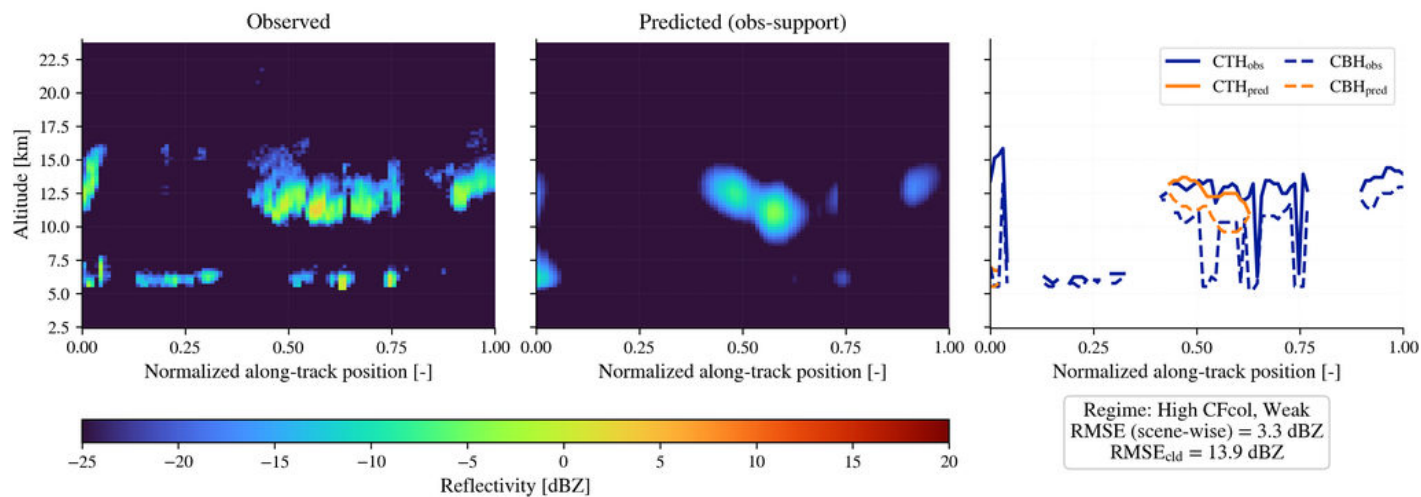


Figure S130. High CFcol, Weak; observed CFcol = 0.603; maximum observed reflectivity = -1.1 dBZ.

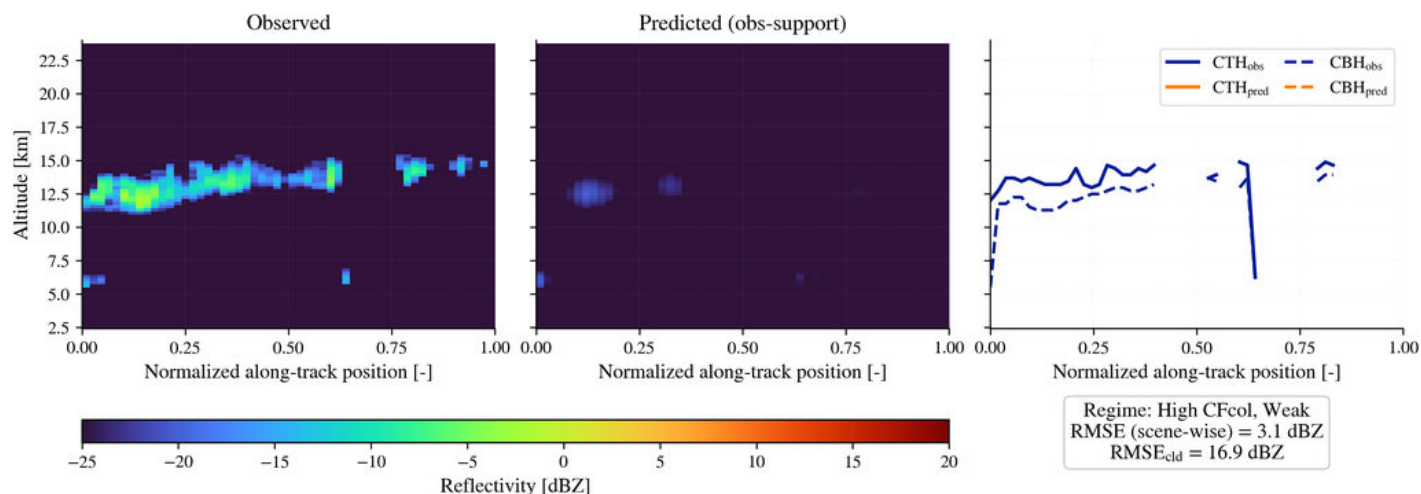


Figure S131. Med CFcol, Weak; observed CFcol = 0.323; maximum observed reflectivity = 1.2 dBZ.

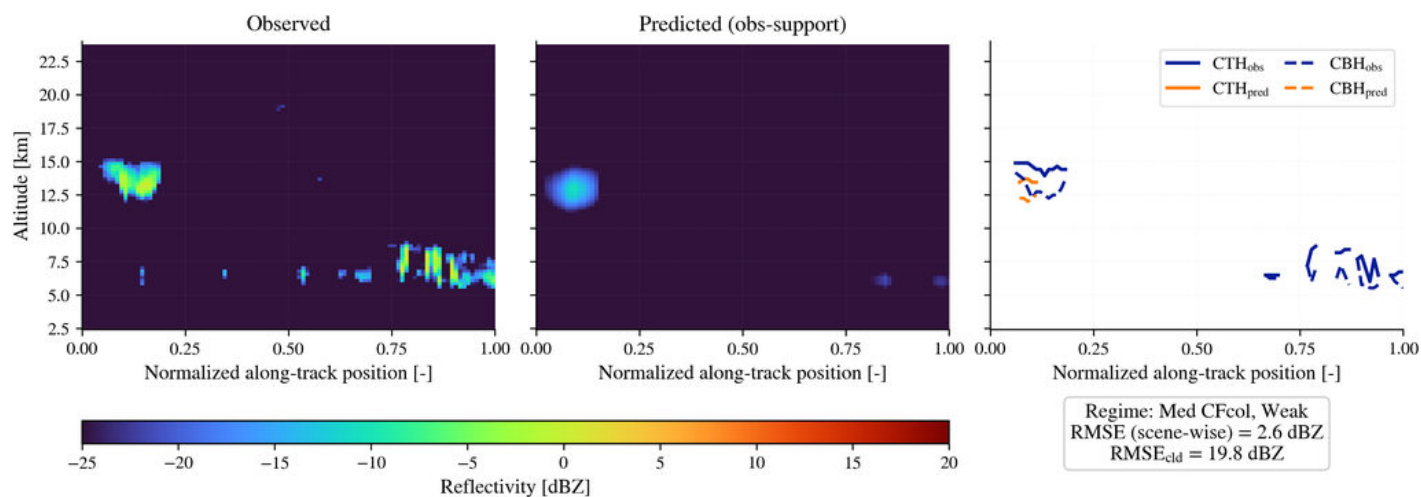


Figure S132. Low CFcol, Strong; observed CFcol = 0.164; maximum observed reflectivity = 16.0 dBZ.

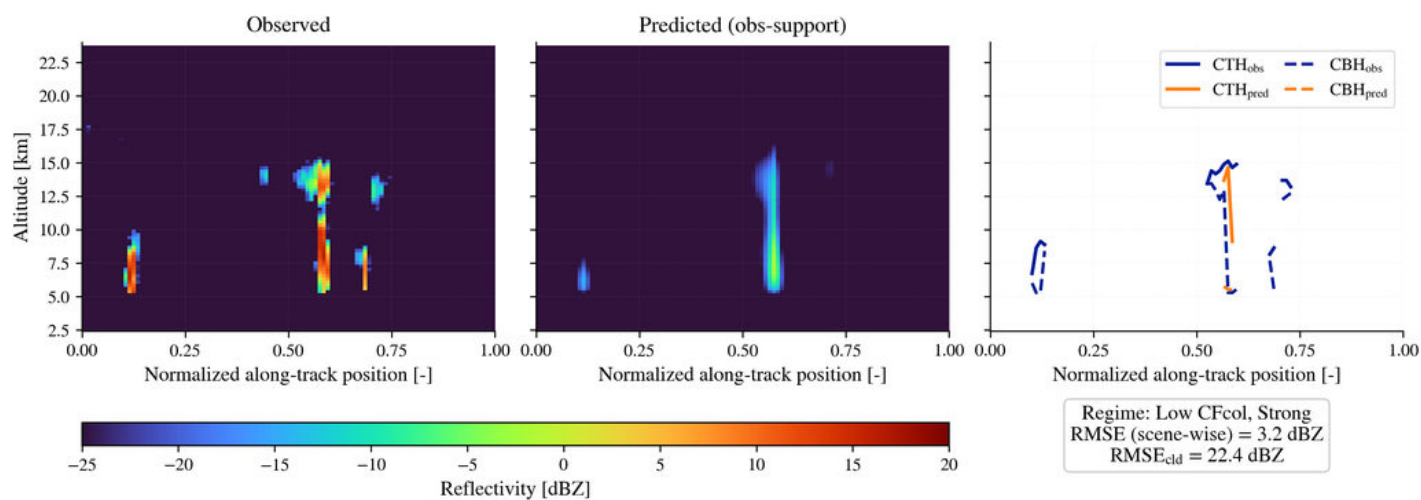


Figure S133. Med CFcol, Strong; observed CFcol = 0.513; maximum observed reflectivity = 16.0 dBZ.

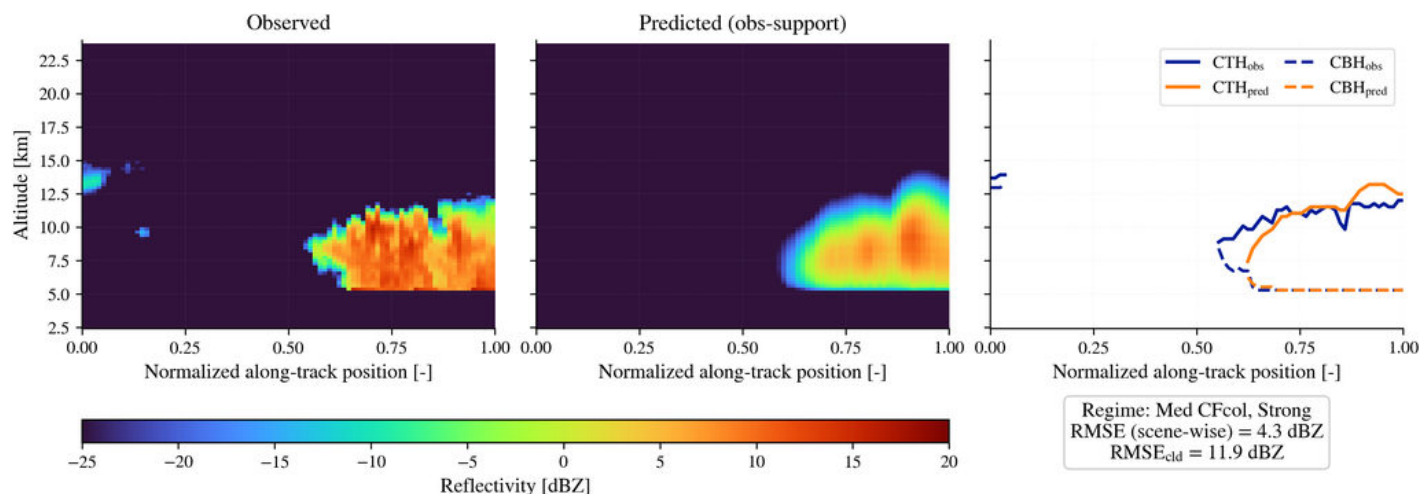


Figure S134. Low CFcol, Strong; observed CFcol = 0.067; maximum observed reflectivity = 17.5 dBZ.

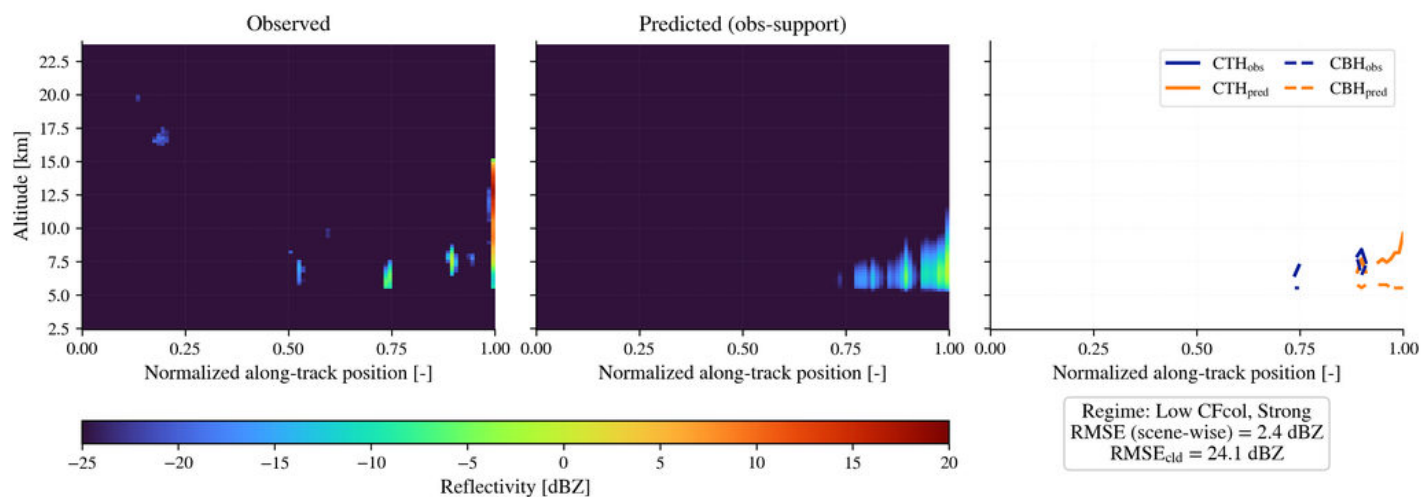


Figure S135. High CFcol, Strong; observed CFcol = 0.715; maximum observed reflectivity = 7.9 dBZ.

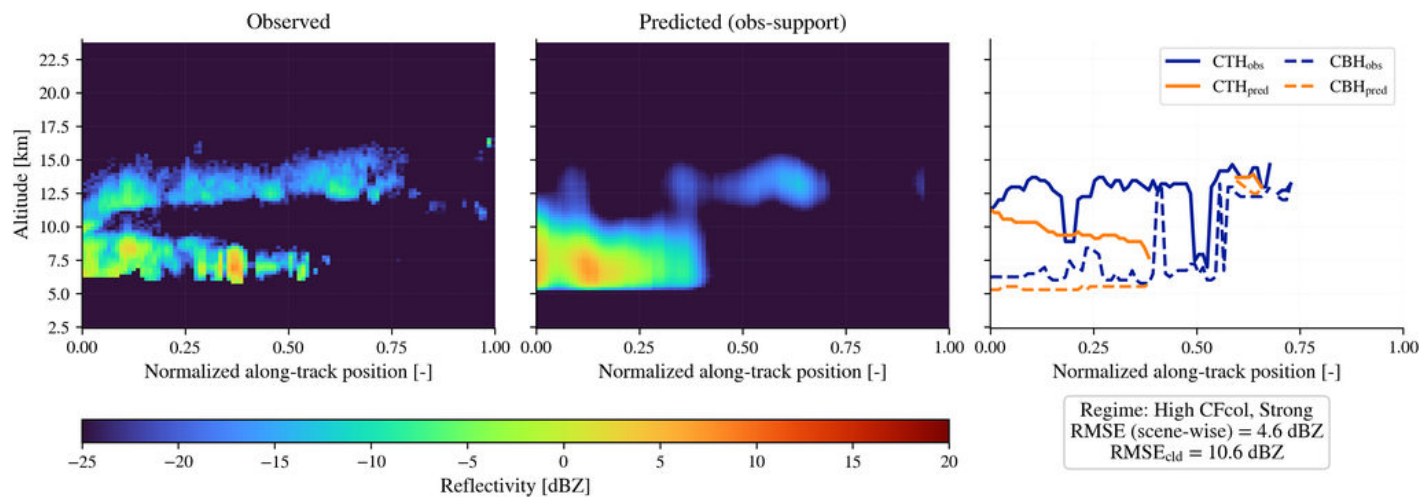


Figure S136. Med CFcol, Weak; observed CFcol = 0.504; maximum observed reflectivity = 4.4 dBZ.

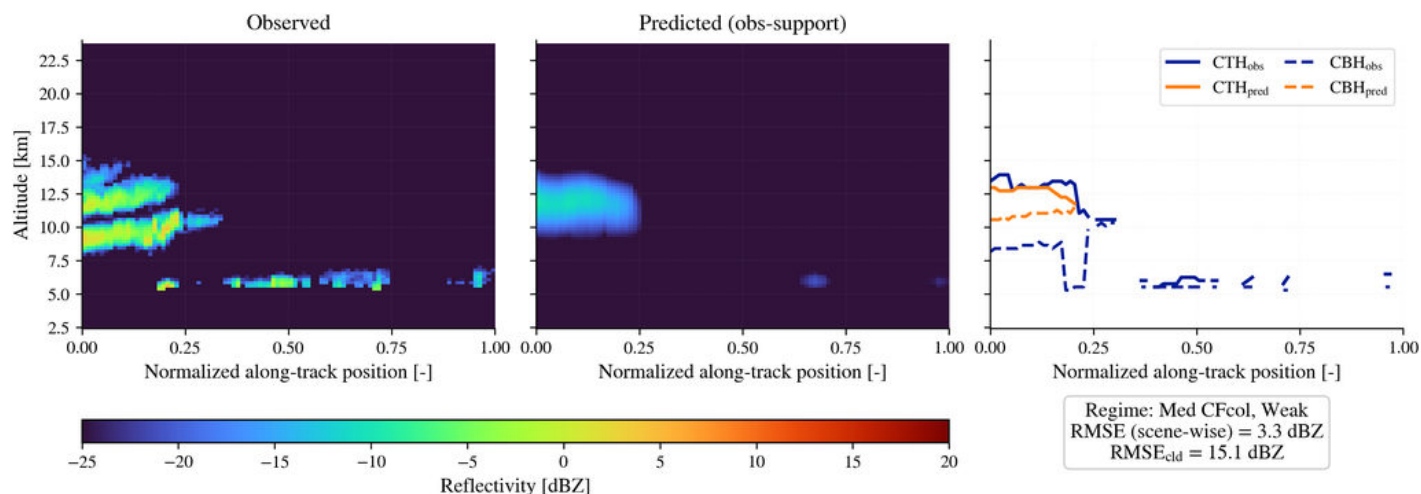


Figure S137. Low CFcol, Weak; observed CFcol = 0.052; maximum observed reflectivity = -7.1 dBZ.

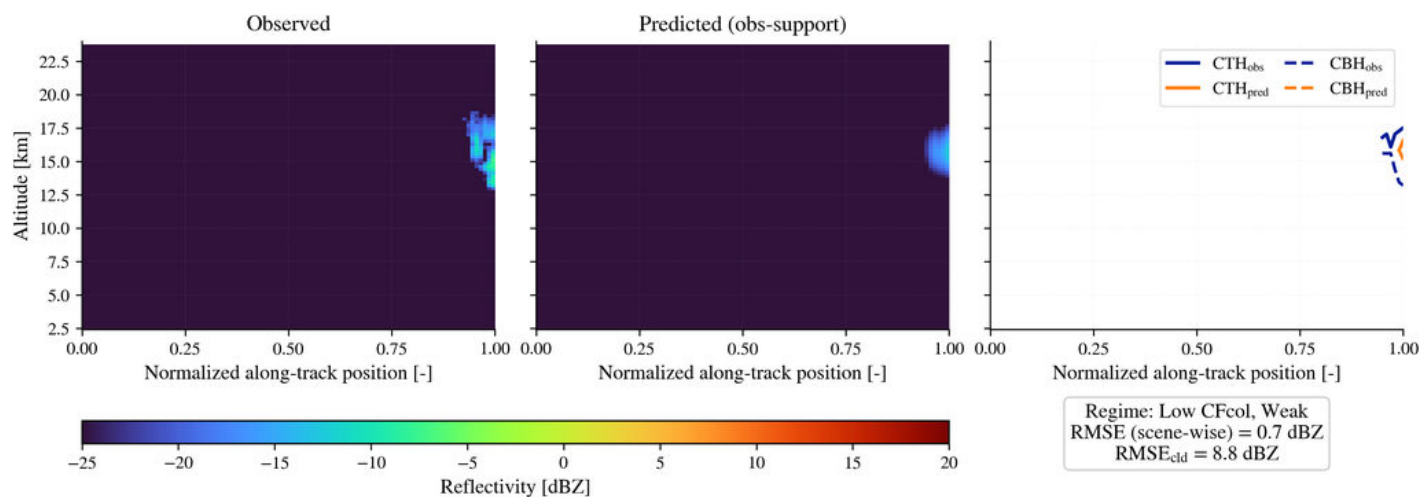


Figure S138. Low CFcol, Strong; observed CFcol = 0.144; maximum observed reflectivity = 18.8 dBZ.

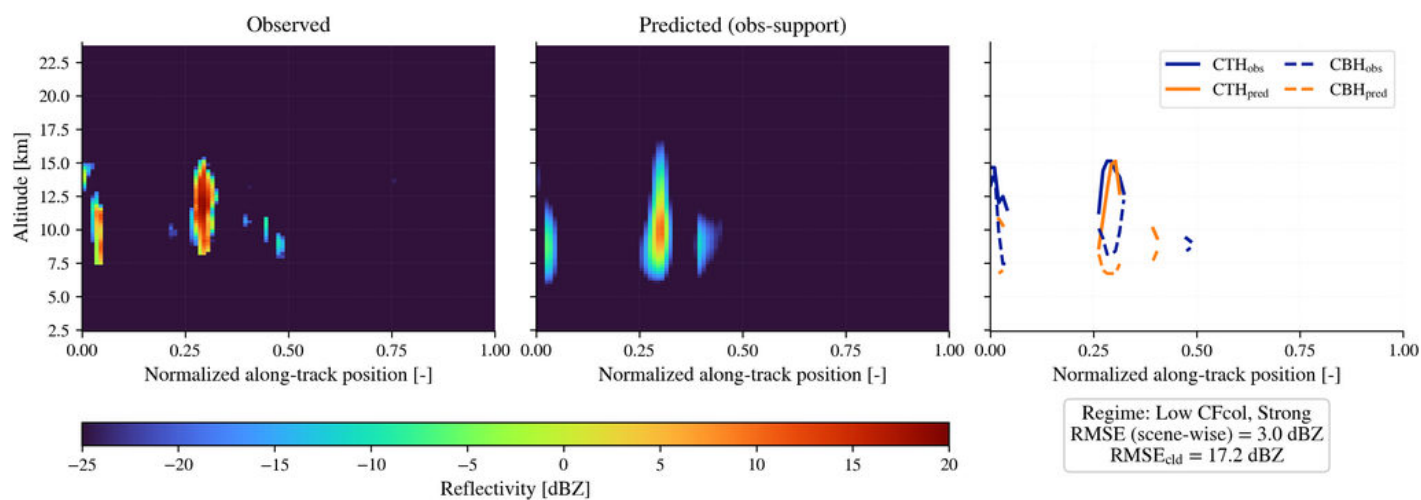


Figure S139. Med CFcol, Weak; observed CFcol = 0.260; maximum observed reflectivity = 0.5 dBZ.

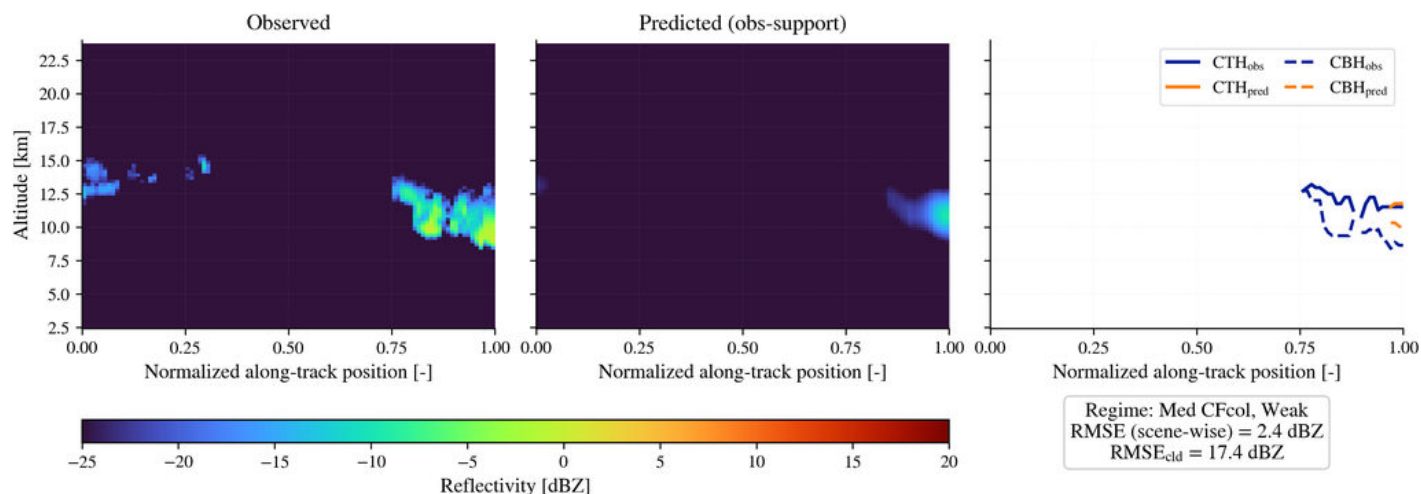


Figure S140. Low CFcol, Strong; observed CFcol = 0.108; maximum observed reflectivity = 15.4 dBZ.

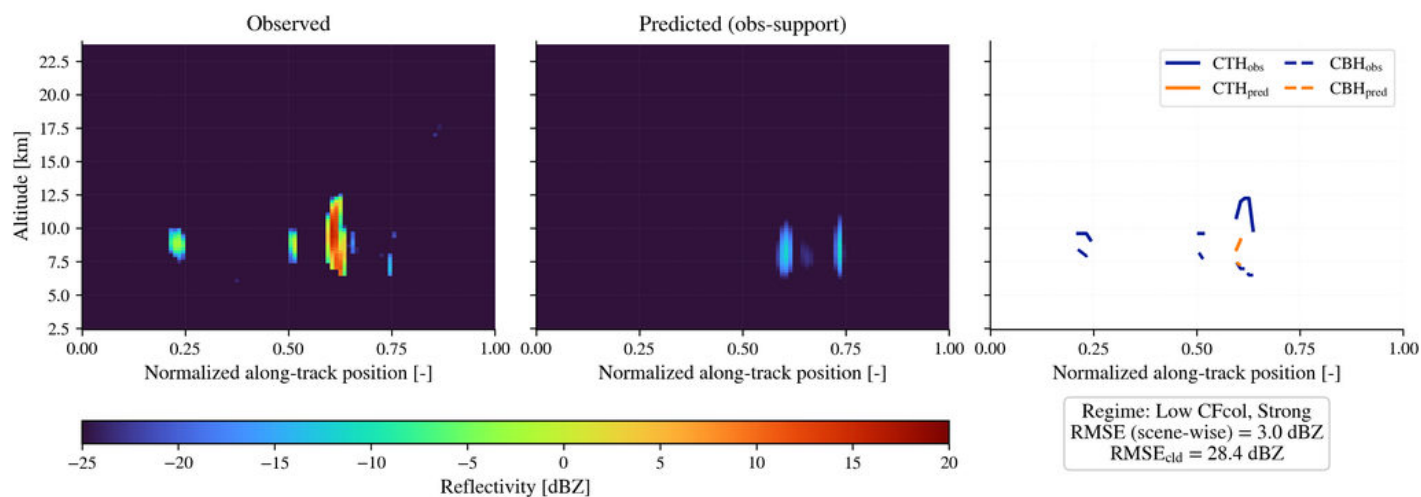


Figure S141. Low CFcol, Weak; observed CFcol = 0.198; maximum observed reflectivity = -1.1 dBZ.

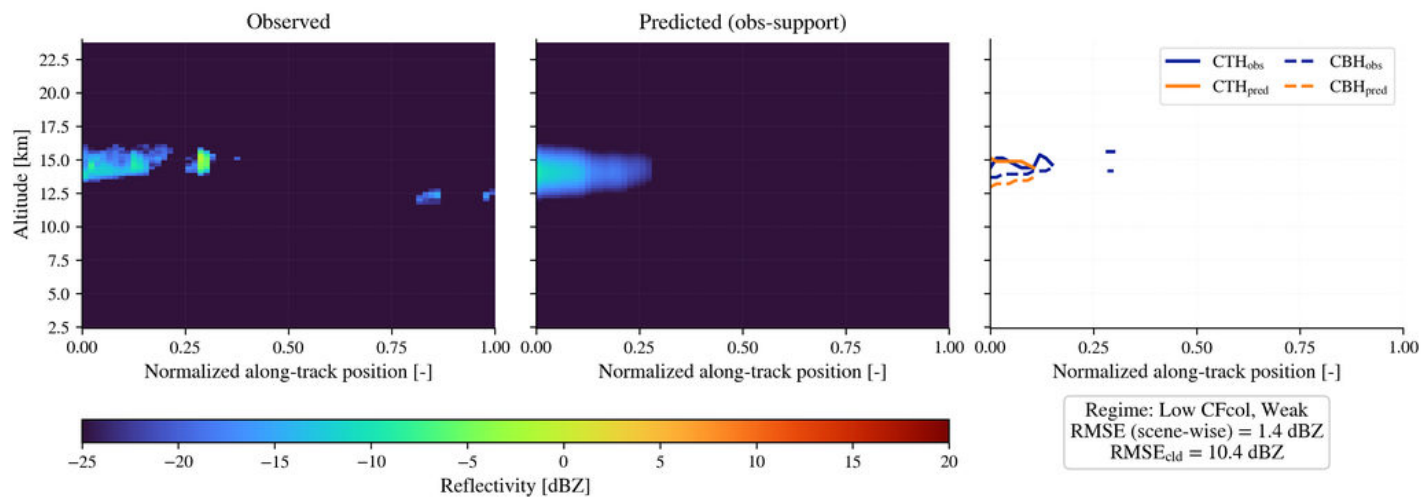


Figure S142. Low CFcol, Strong; observed CFcol = 0.119; maximum observed reflectivity = 14.2 dBZ.

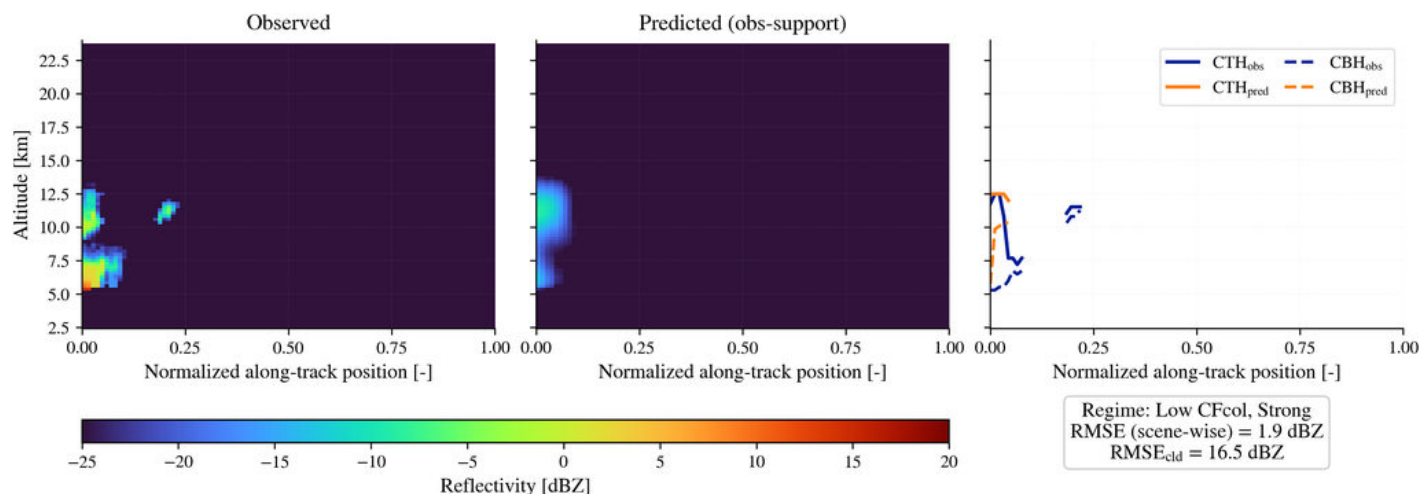


Figure S143. Med CFcol, Weak; observed CFcol = 0.295; maximum observed reflectivity = -4.2 dBZ.

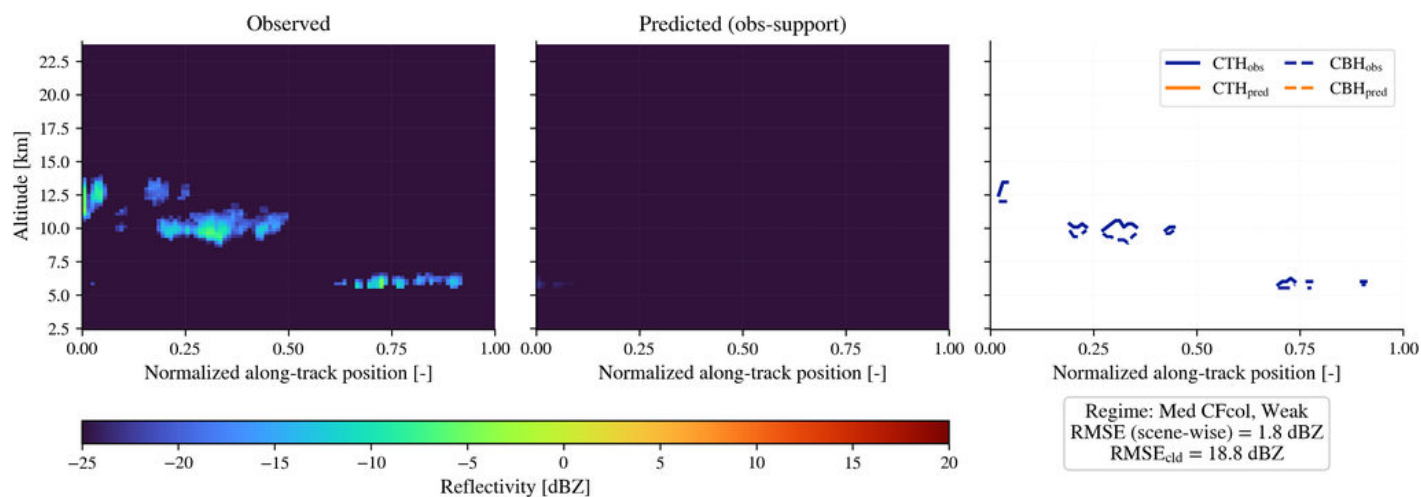


Figure S144. Med CFcol, Strong; observed CFcol = 0.444; maximum observed reflectivity = 12.9 dBZ.

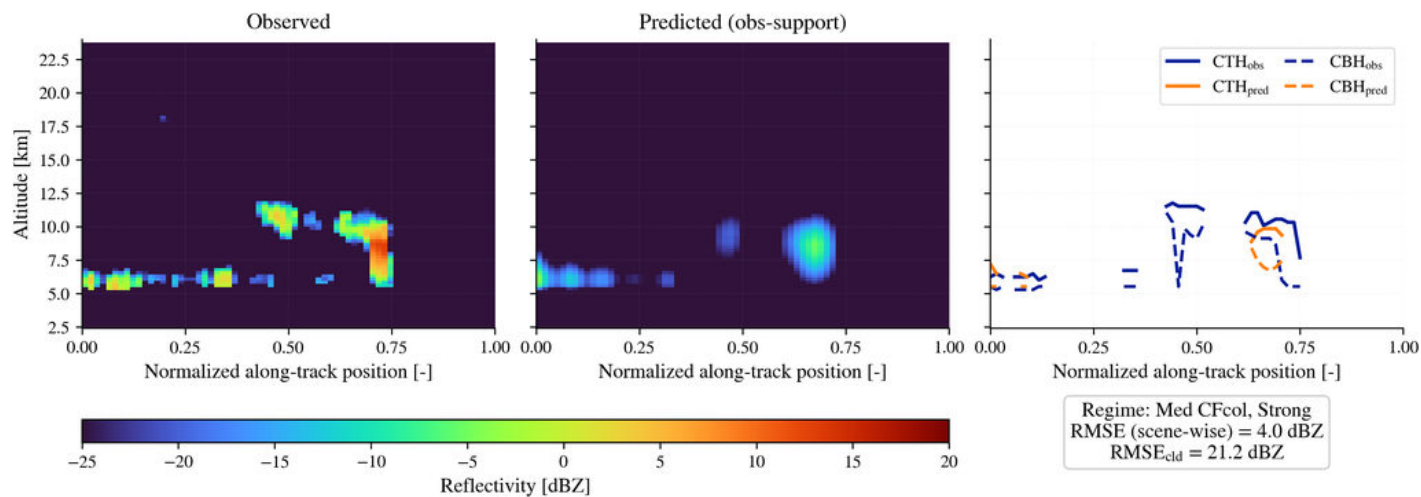


Figure S145. Med CFcol, Weak; observed CFcol = 0.458; maximum observed reflectivity = 4.5 dBZ.

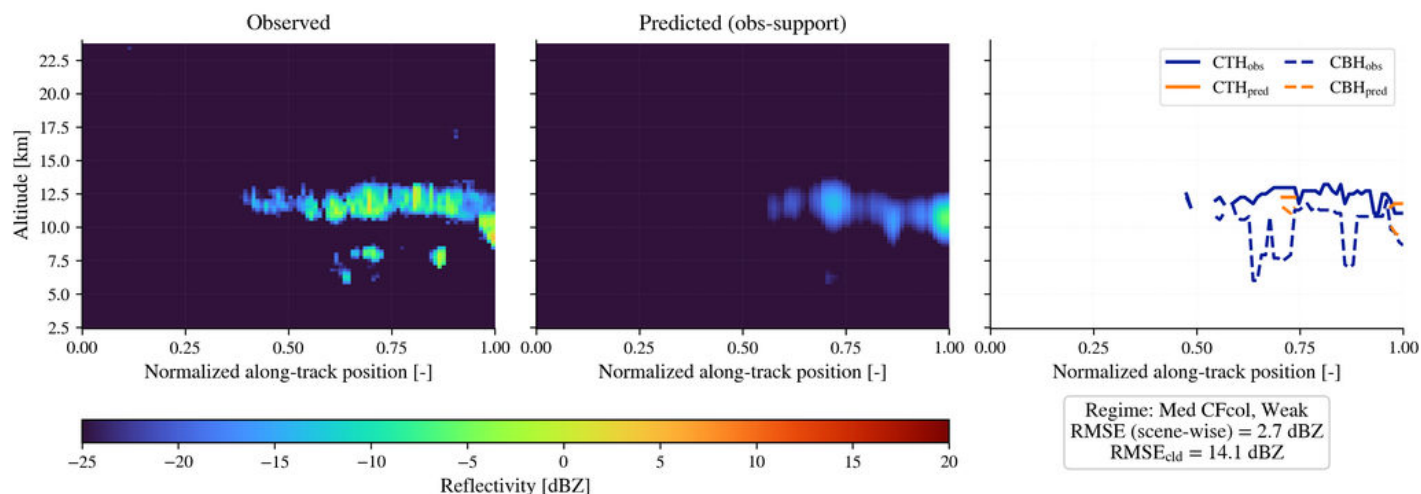


Figure S146. High CFcol, Strong; observed CFcol = 0.664; maximum observed reflectivity = 9.5 dBZ.

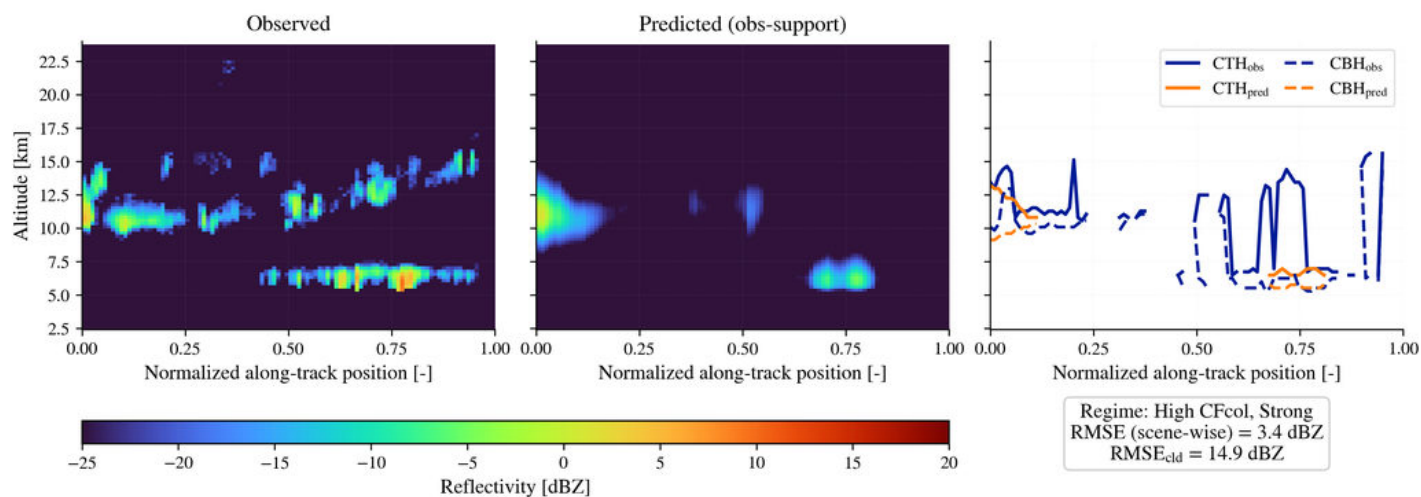


Figure S147. High CFcol, Strong; observed CFcol = 1.000; maximum observed reflectivity = 19.7 dBZ.

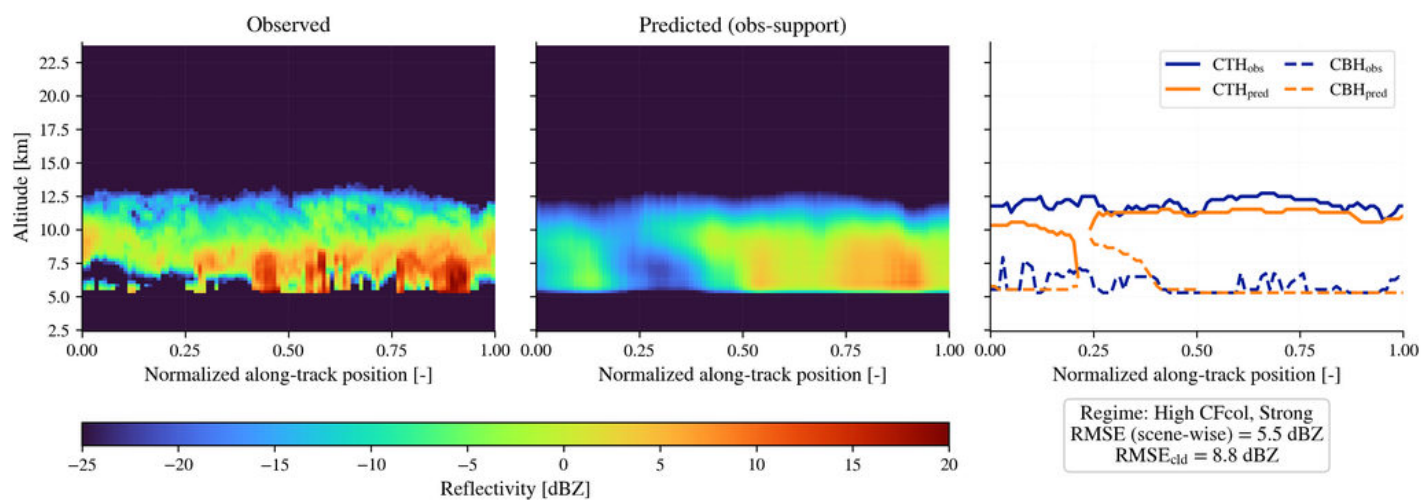


Figure S148. Low CFcol, Weak; observed CFcol = 0.142; maximum observed reflectivity = -4.5 dBZ.

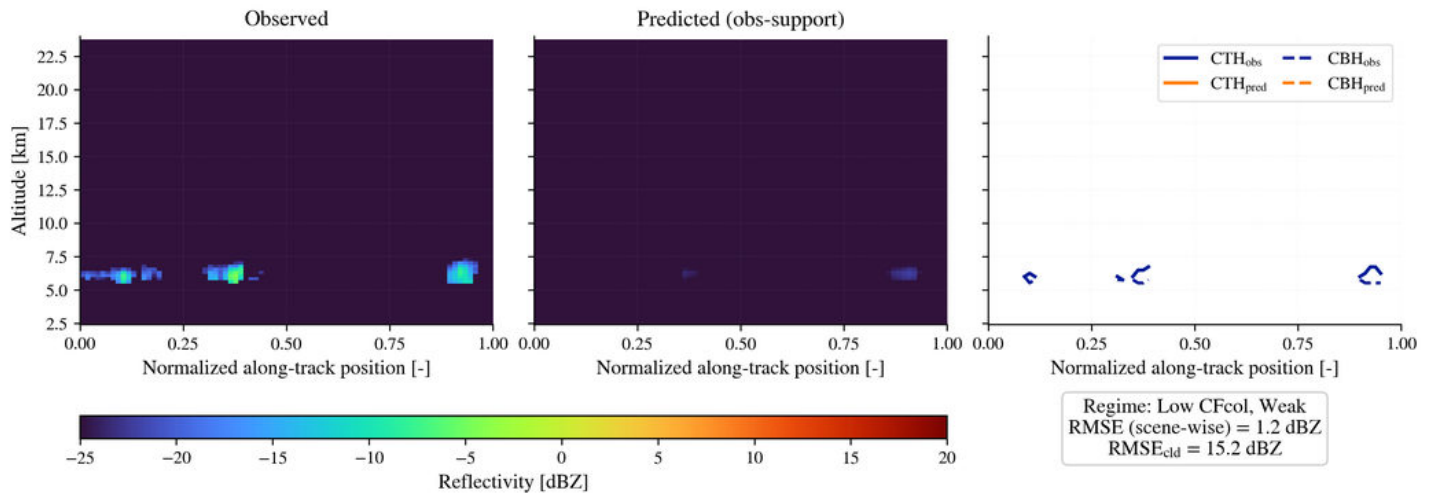


Figure S149. Low CFcol, Strong; observed CFcol = 0.153; maximum observed reflectivity = 13.0 dBZ.

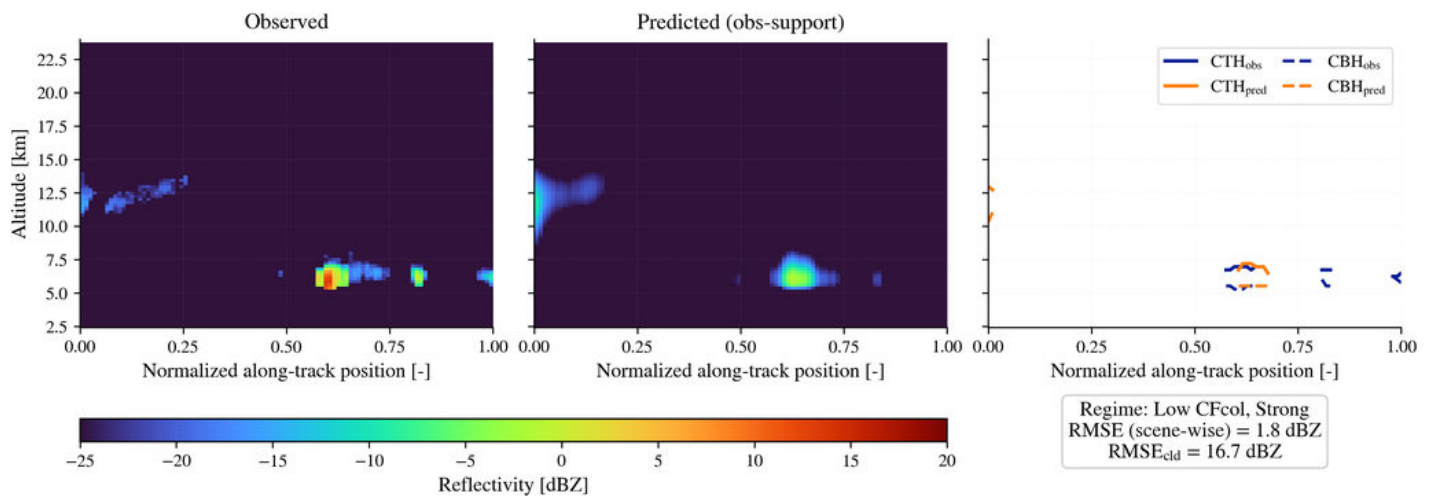


Figure S150. Low CFcol, Strong; observed CFcol = 0.171; maximum observed reflectivity = 12.6 dBZ.

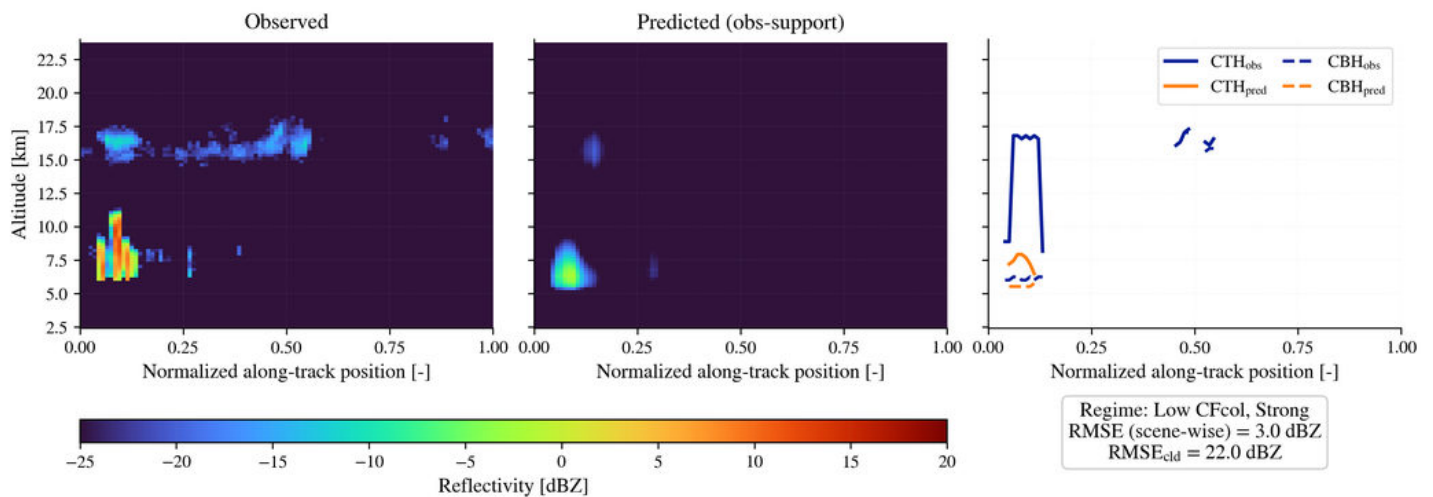


Figure S151. High CFcol, Weak; observed CFcol = 0.743; maximum observed reflectivity = 3.8 dBZ.

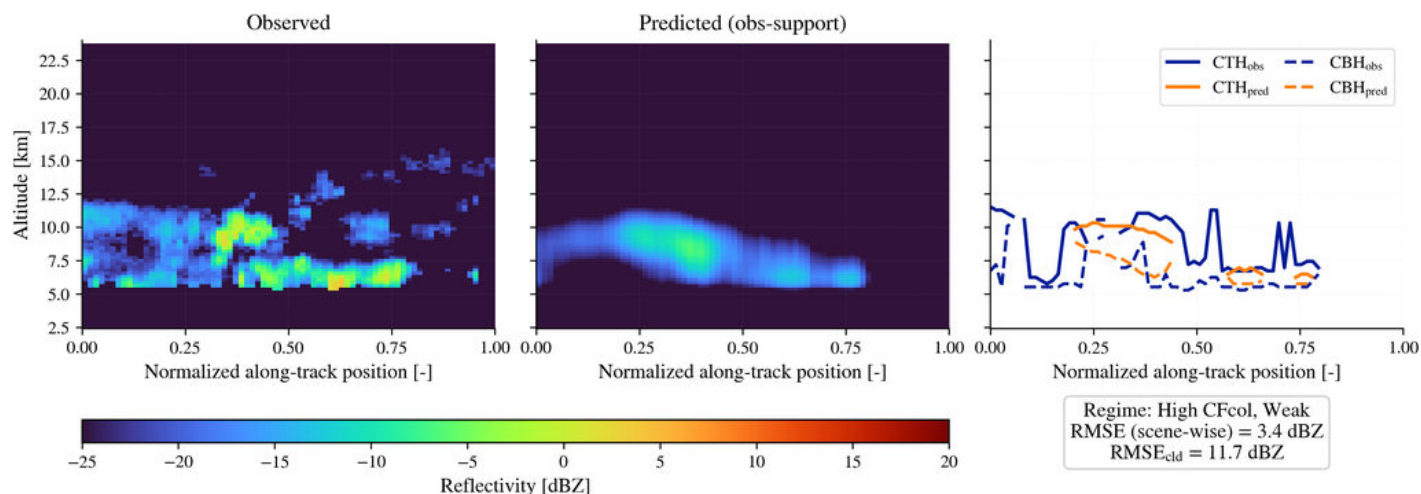


Figure S152. High CFcol, Weak; observed CFcol = 0.621; maximum observed reflectivity = 2.7 dBZ.

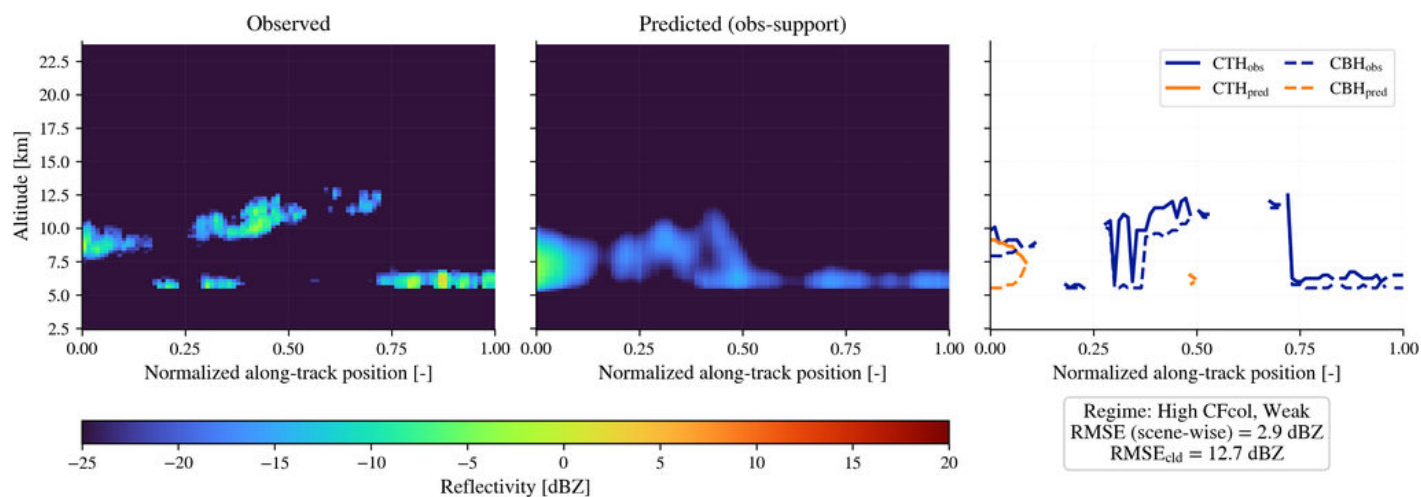


Figure S153. High CFcol, Weak; observed CFcol = 0.968; maximum observed reflectivity = 4.6 dBZ.

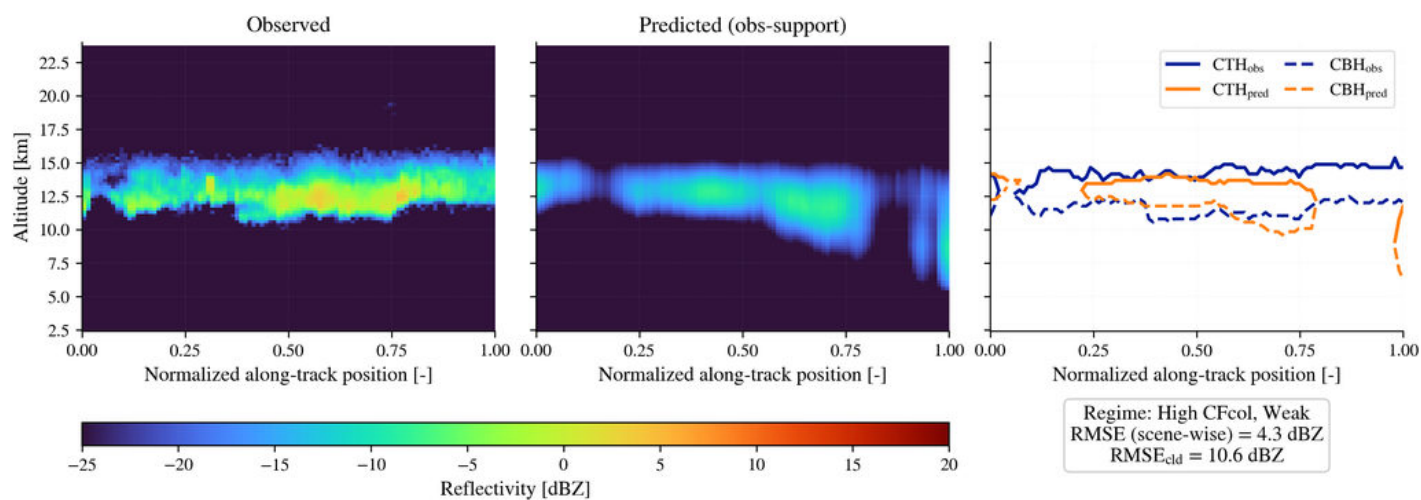


Figure S154. High CFcol, Weak; observed CFcol = 1.000; maximum observed reflectivity = 4.9 dBZ.

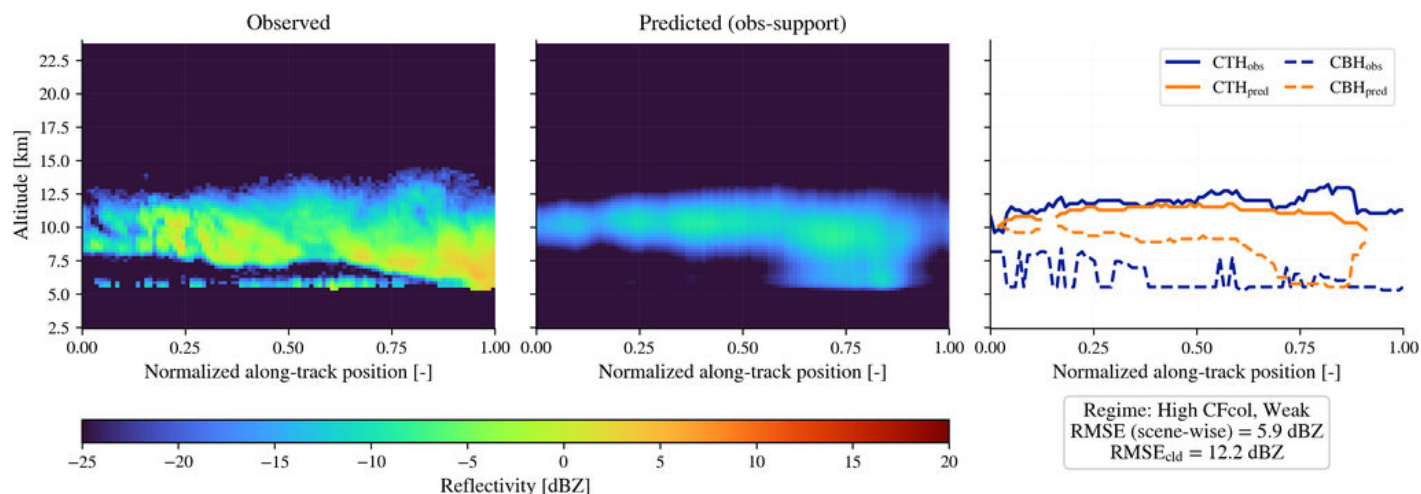


Figure S155. High CFcol, Weak; observed CFcol = 0.817; maximum observed reflectivity = 3.0 dBZ.

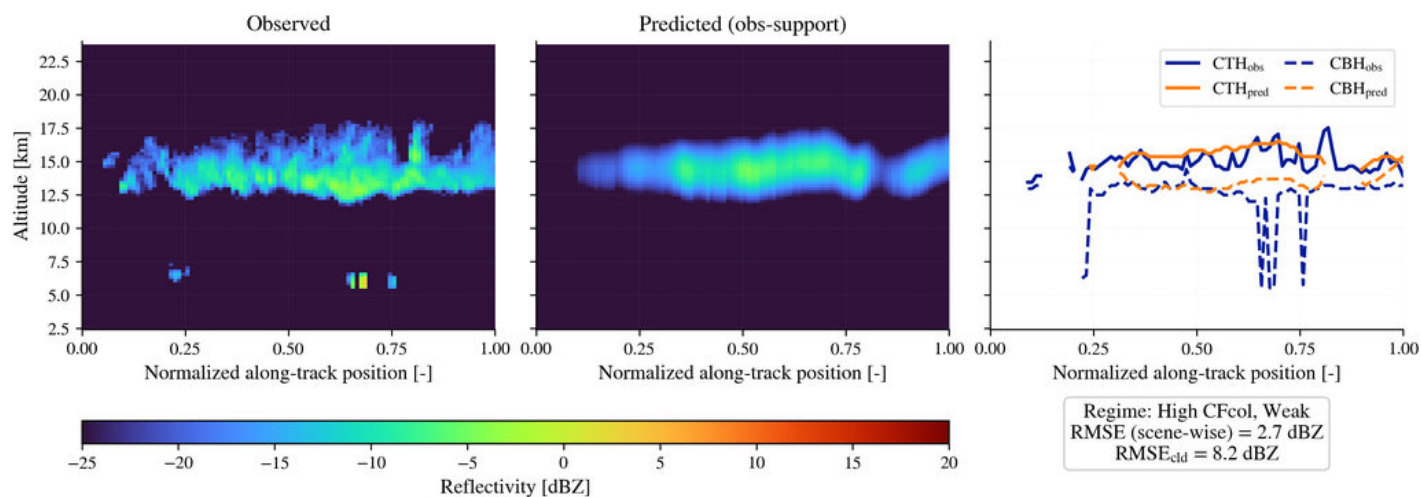


Figure S156. Low CFcol, Weak; observed CFcol = 0.132; maximum observed reflectivity = -0.6 dBZ.

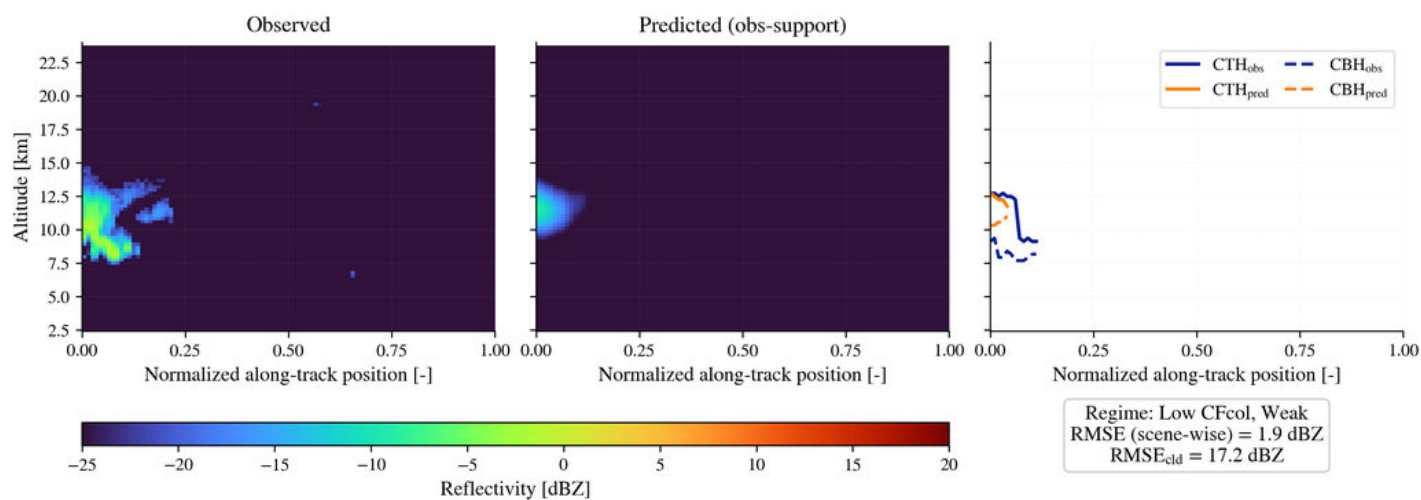


Figure S157. High CFcol, Strong; observed CFcol = 0.734; maximum observed reflectivity = 13.5 dBZ.

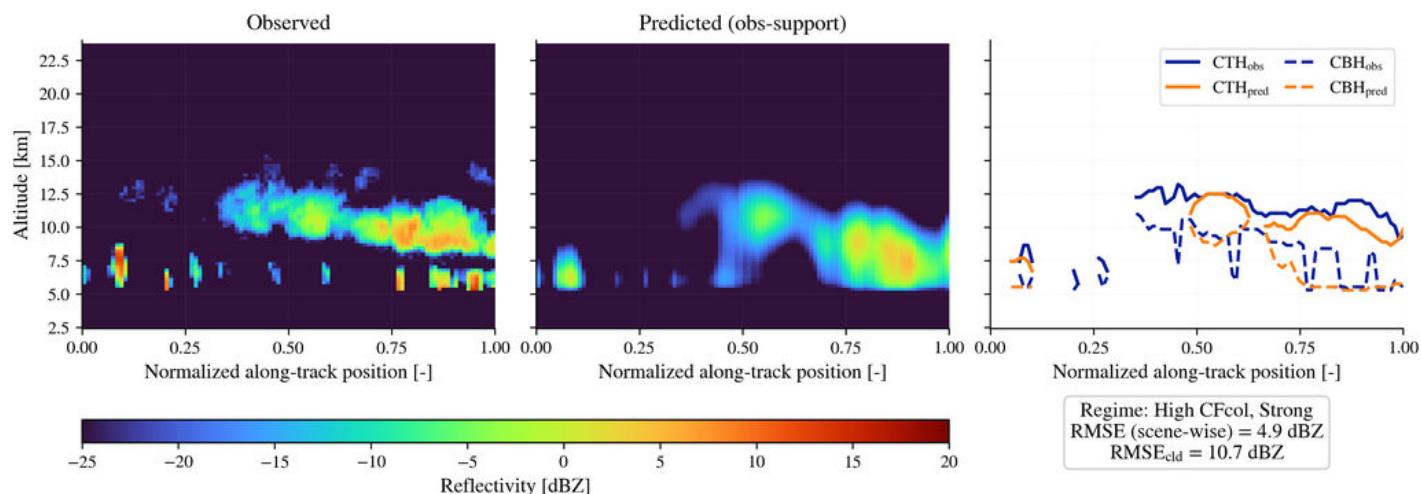


Figure S158. Med CFcol, Strong; observed CFcol = 0.526; maximum observed reflectivity = 15.7 dBZ.

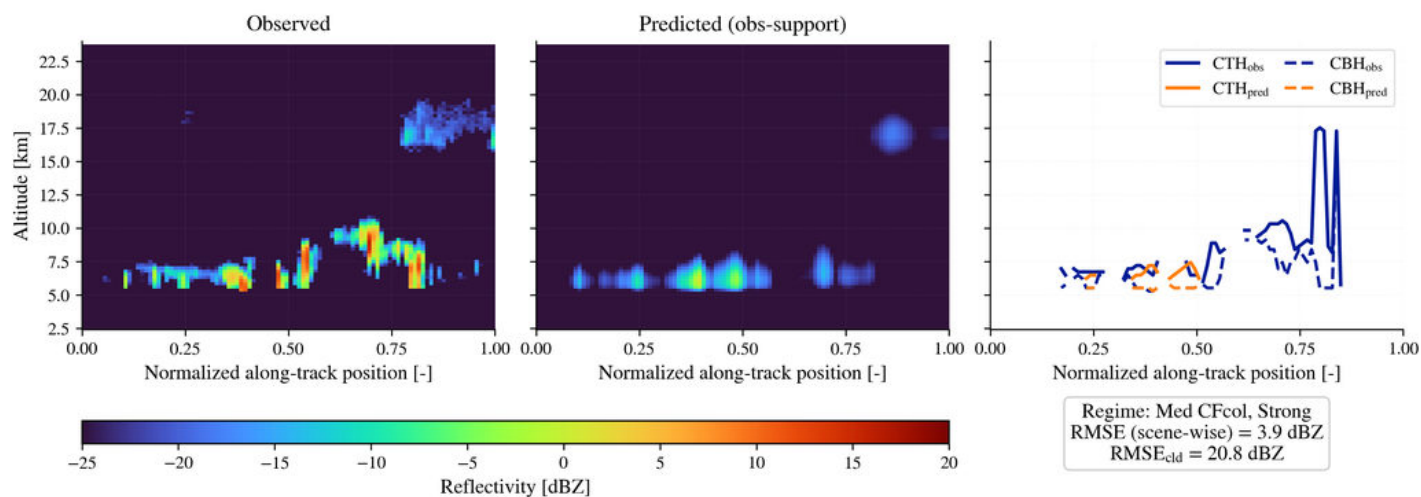


Figure S159. High CFcol, Strong; observed CFcol = 0.877; maximum observed reflectivity = 17.7 dBZ.

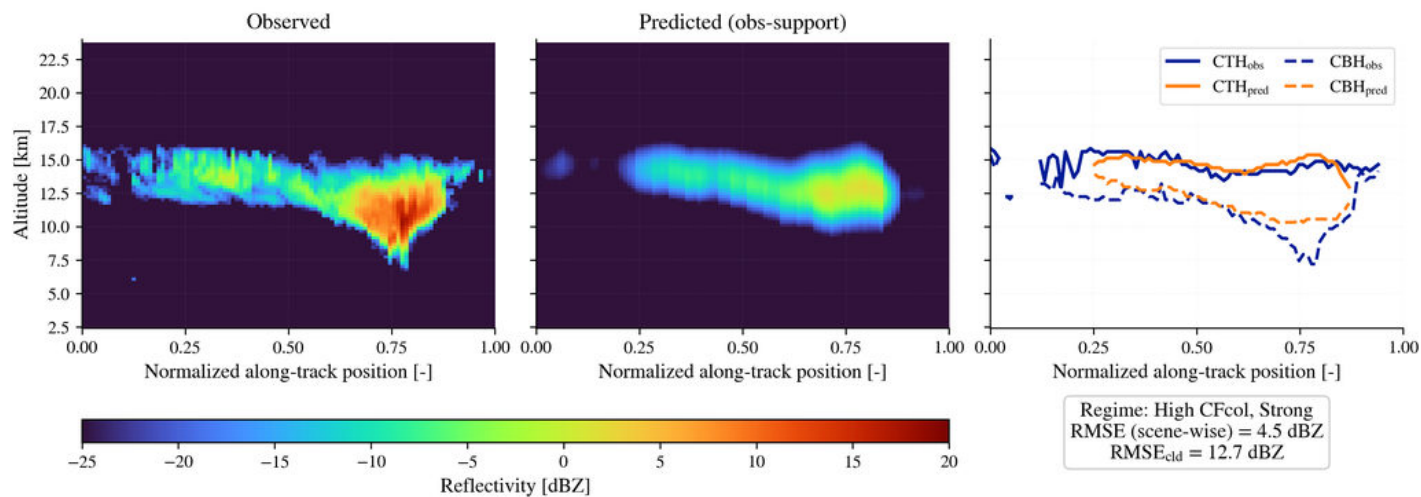


Figure S160. Med CFcol, Strong; observed CFcol = 0.361; maximum observed reflectivity = 17.5 dBZ.

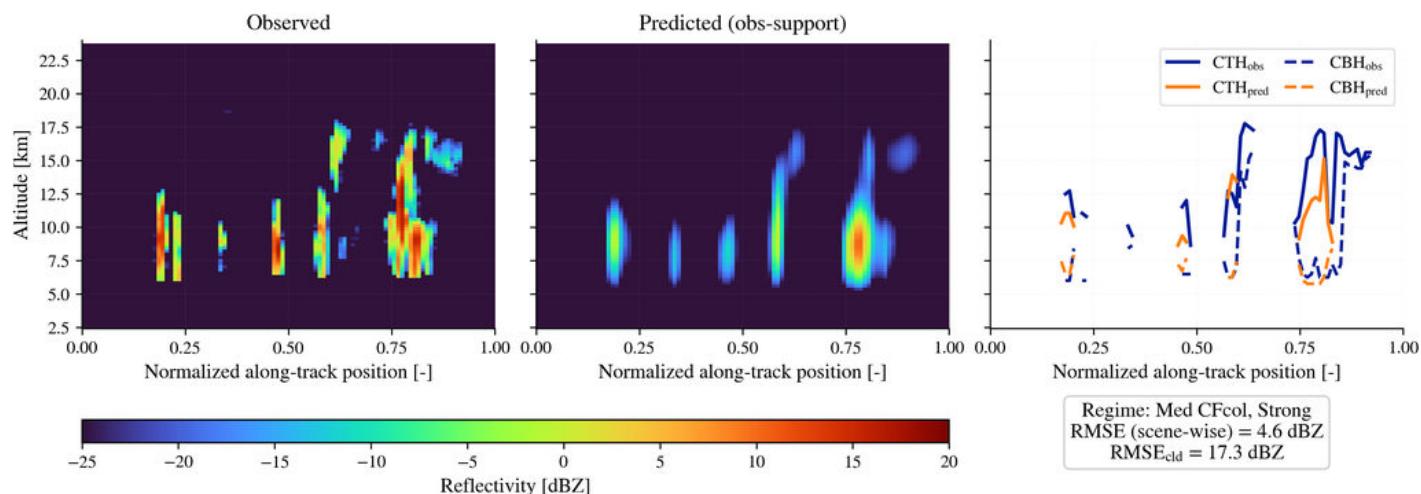


Figure S161. High CFcol, Weak; observed CFcol = 0.630; maximum observed reflectivity = 4.2 dBZ.

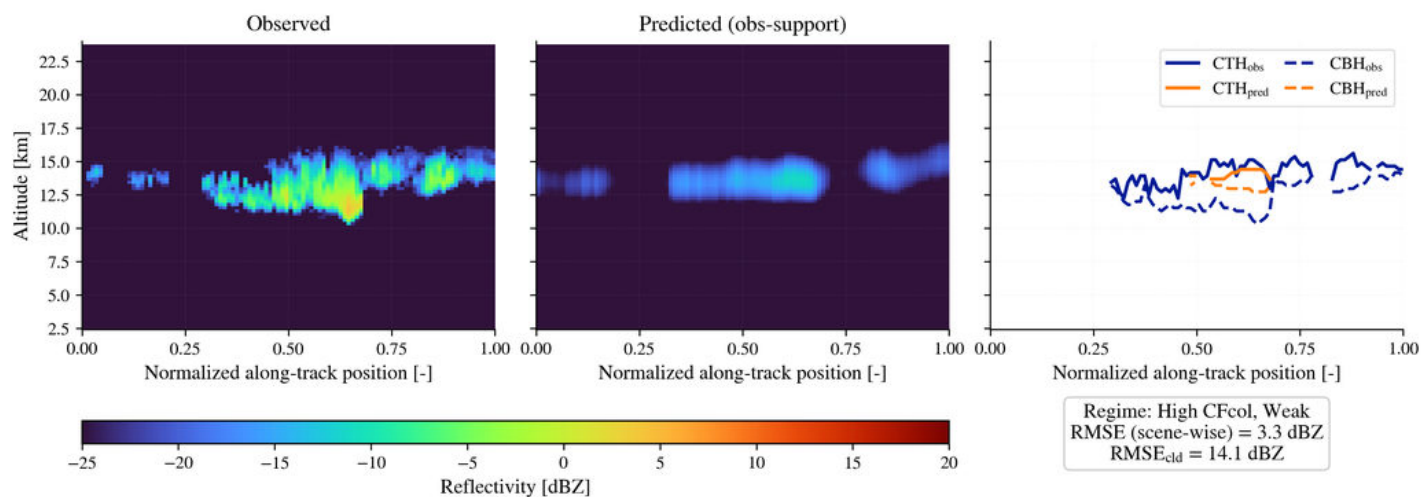


Figure S162. Med CFcol, Strong; observed CFcol = 0.564; maximum observed reflectivity = 6.0 dBZ.

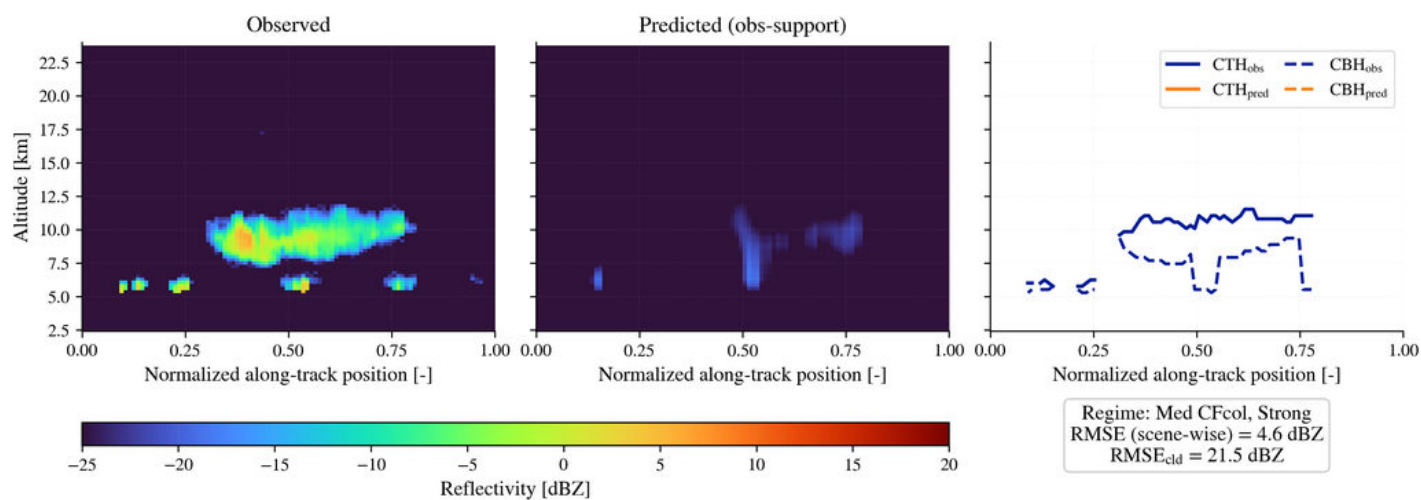


Figure S163. High CFcol, Strong; observed CFcol = 1.000; maximum observed reflectivity = 17.1 dBZ.

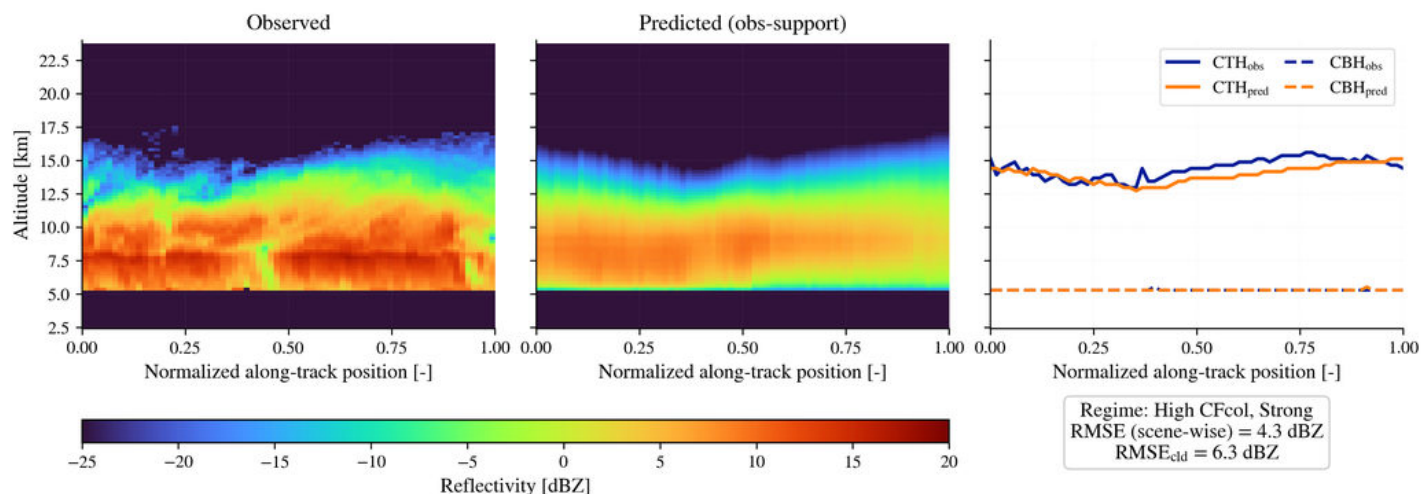


Figure S164. High CFcol, Strong; observed CFcol = 0.605; maximum observed reflectivity = 16.4 dBZ.

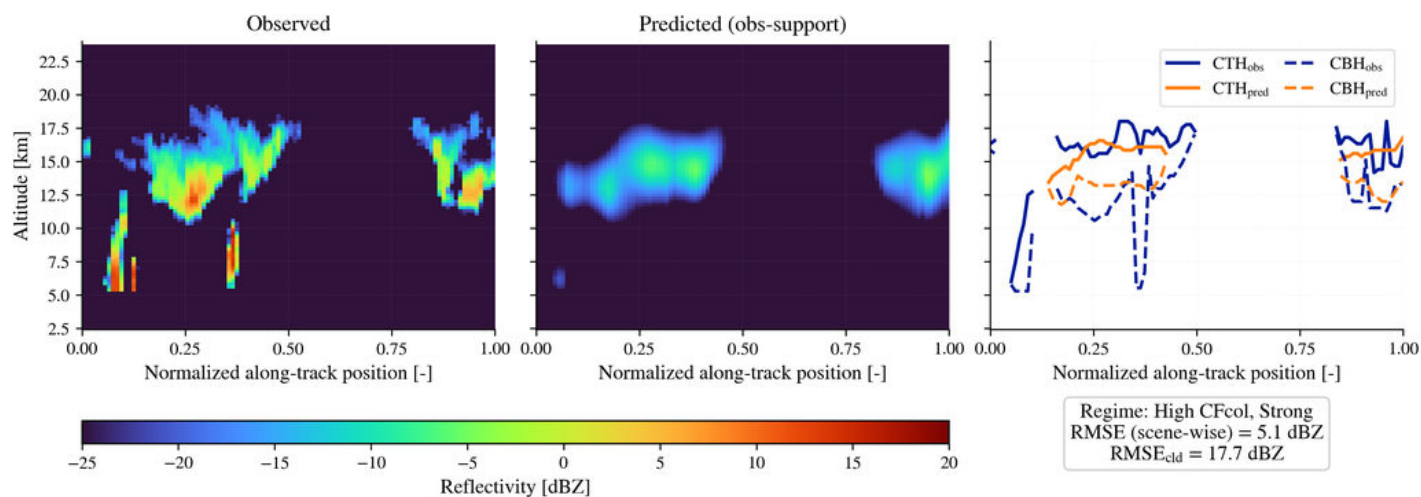


Figure S165. Med CFcol, Weak; observed CFcol = 0.538; maximum observed reflectivity = 2.4 dBZ.

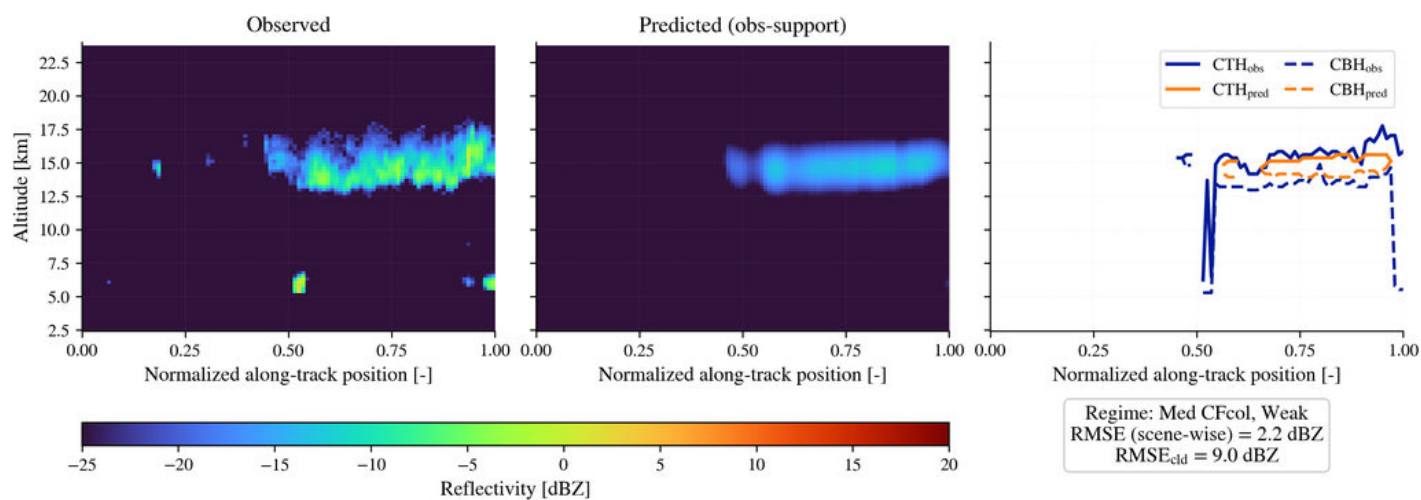


Figure S166. Med CFcol, Weak; observed CFcol = 0.362; maximum observed reflectivity = -4.8 dBZ.

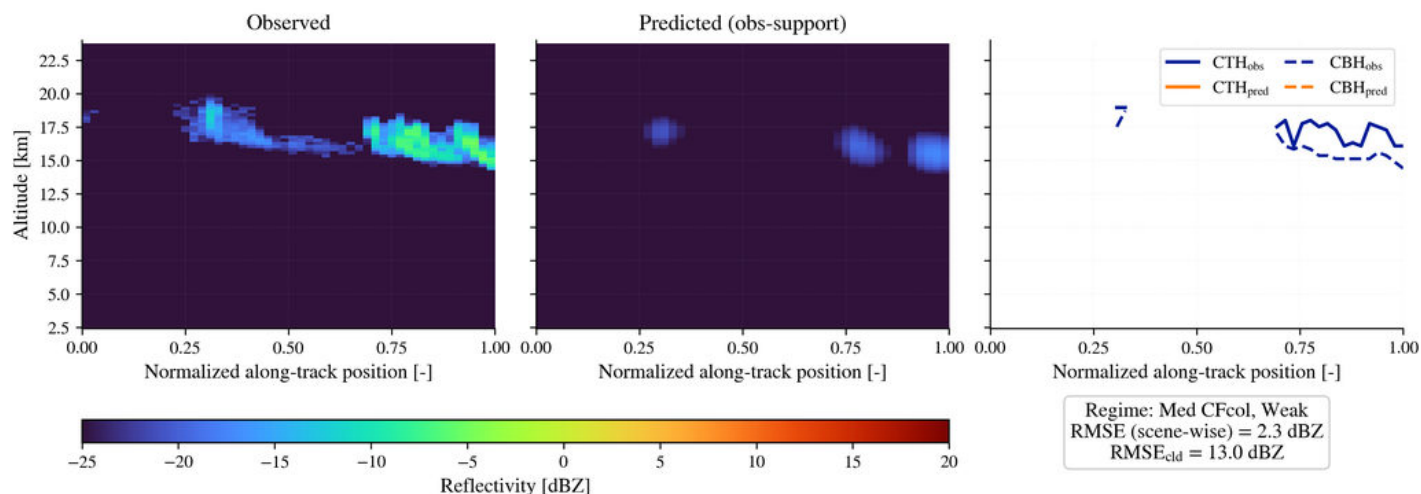


Figure S167. High CFcol, Weak; observed CFcol = 0.788; maximum observed reflectivity = -2.2 dBZ.

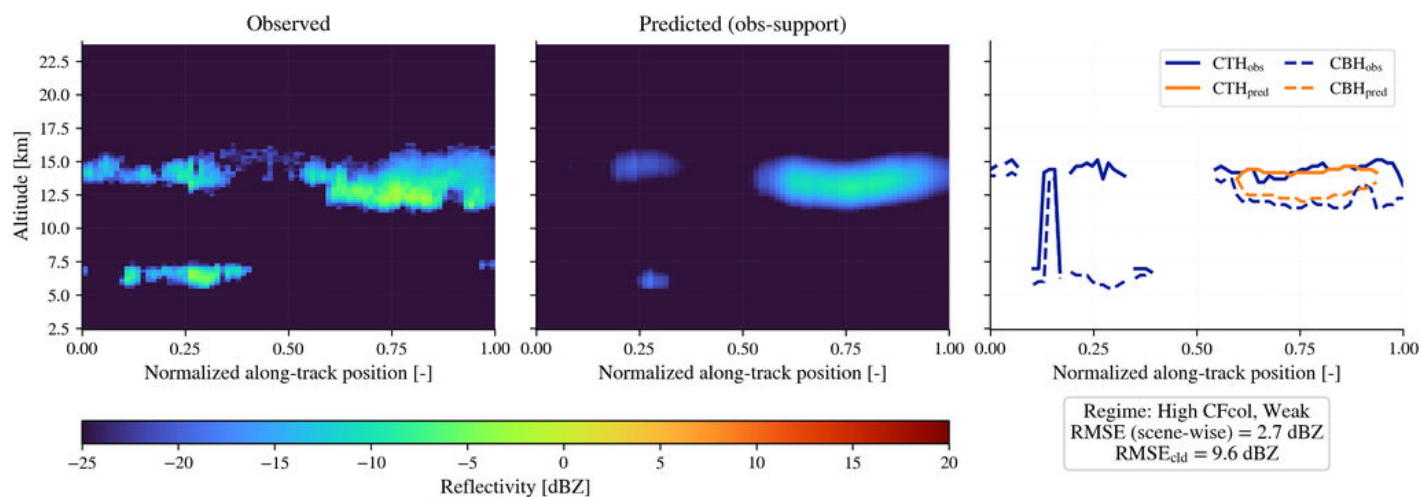


Figure S168. High CFcol, Weak; observed CFcol = 0.715; maximum observed reflectivity = 4.4 dBZ.

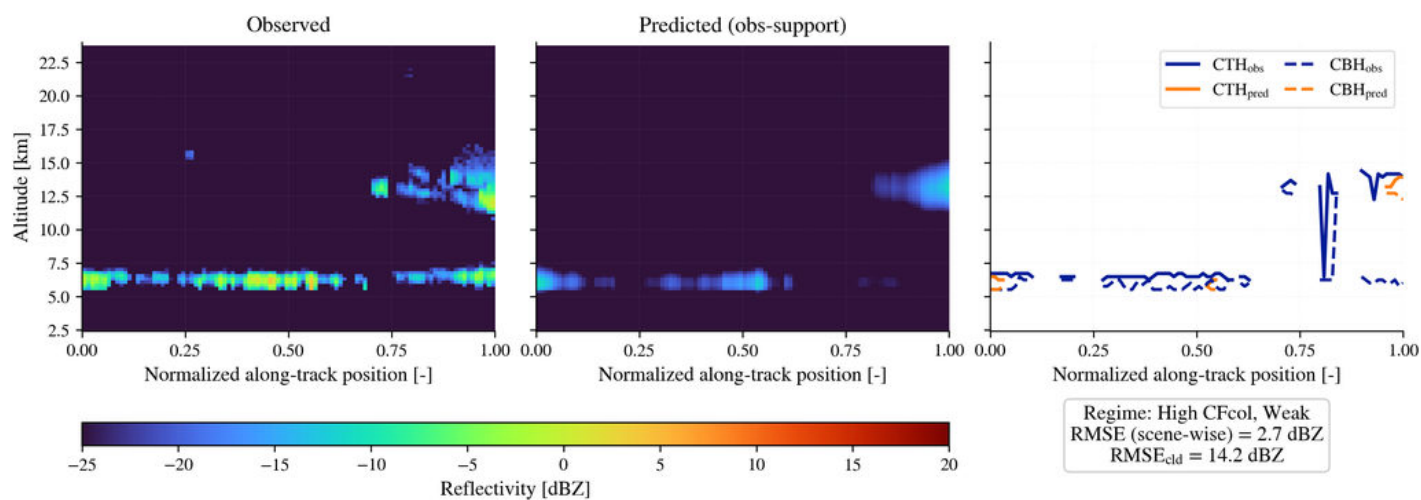


Figure S169. High CFcol, Strong; observed CFcol = 0.784; maximum observed reflectivity = 15.7 dBZ.

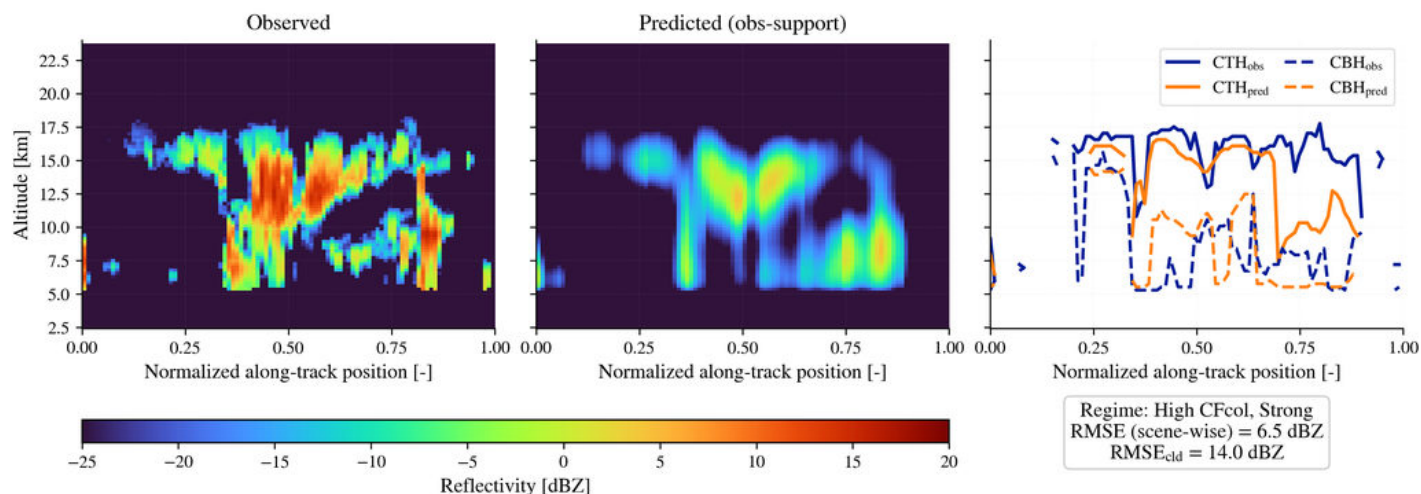


Figure S170. High CFcol, Weak; observed CFcol = 0.920; maximum observed reflectivity = 2.6 dBZ.

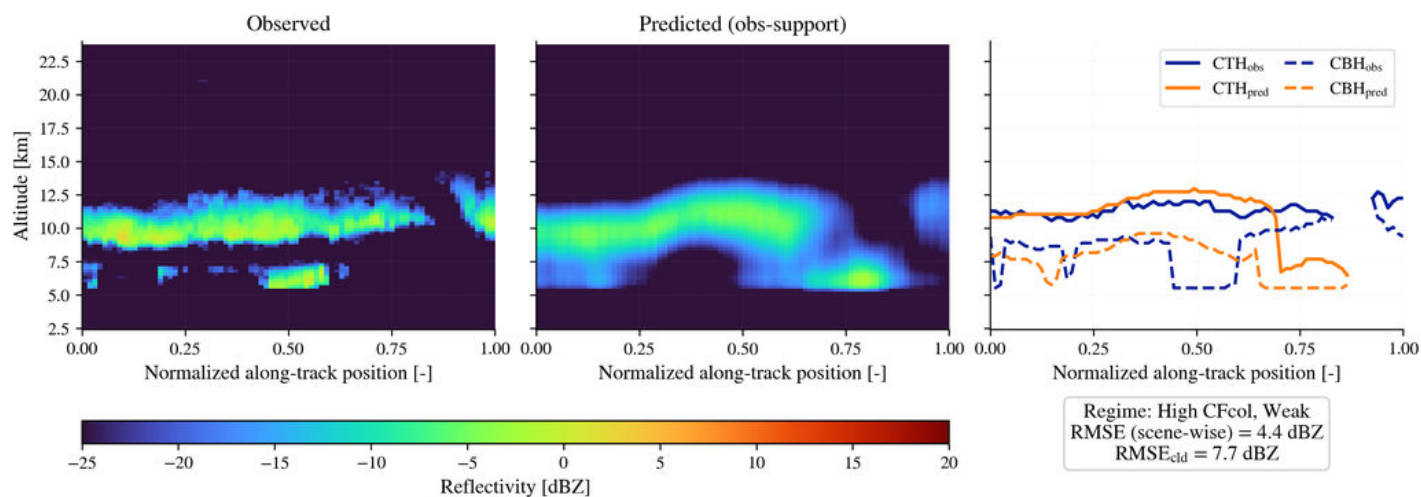


Figure S171. Low CFcol, Weak; observed CFcol = 0.148; maximum observed reflectivity = -5.9 dBZ.

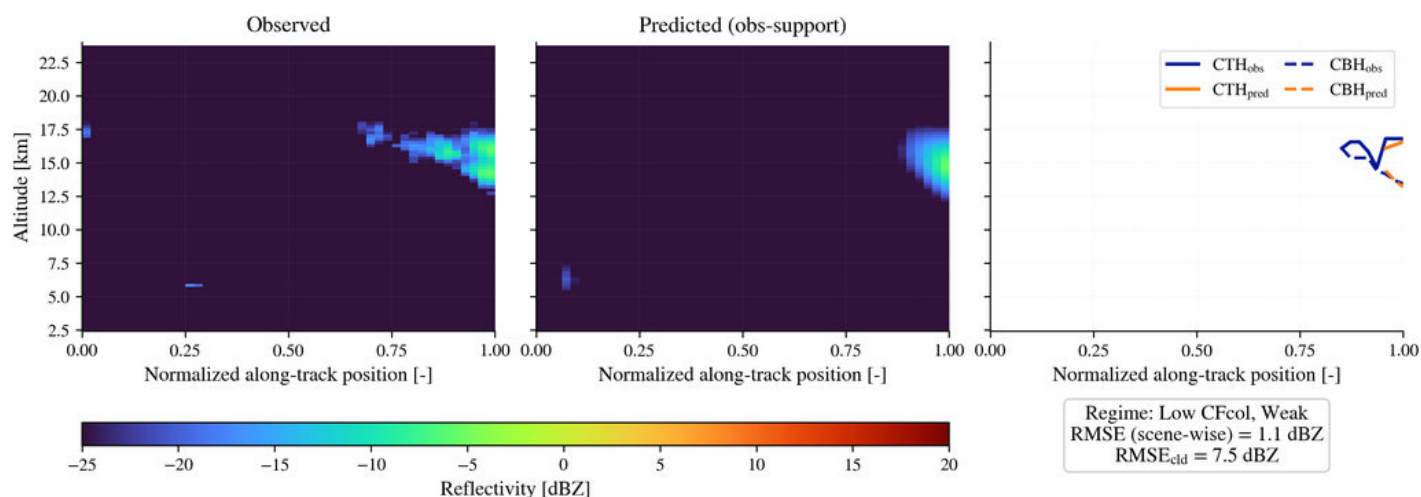


Figure S172. Low CFcol, Weak; observed CFcol = 0.148; maximum observed reflectivity = 2.7 dBZ.

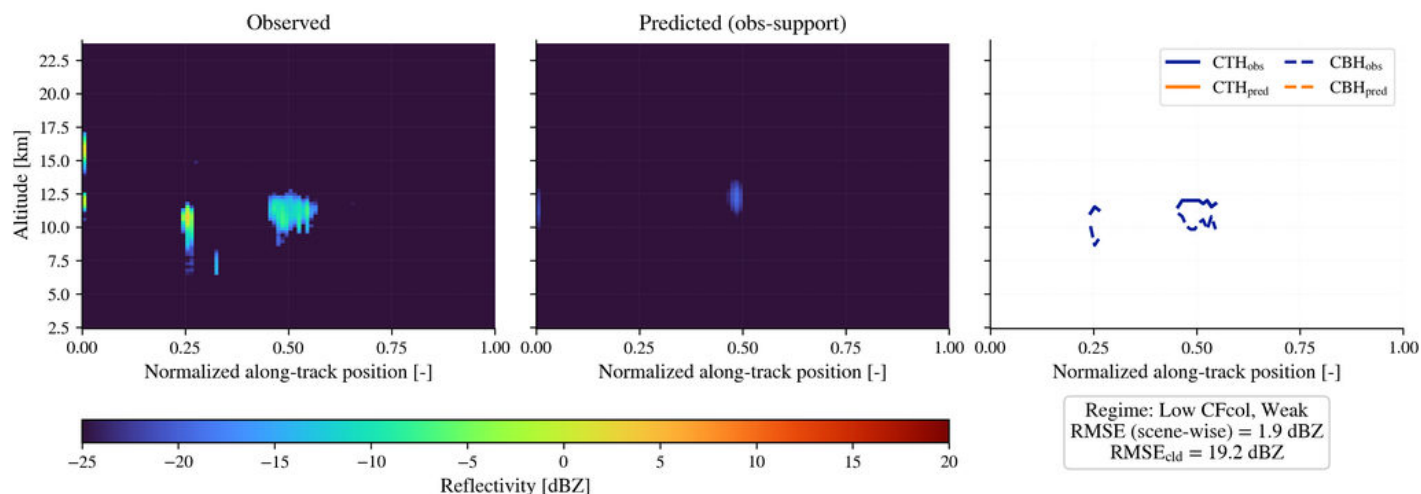


Figure S173. High CFcol, Strong; observed CFcol = 0.964; maximum observed reflectivity = 16.9 dBZ.

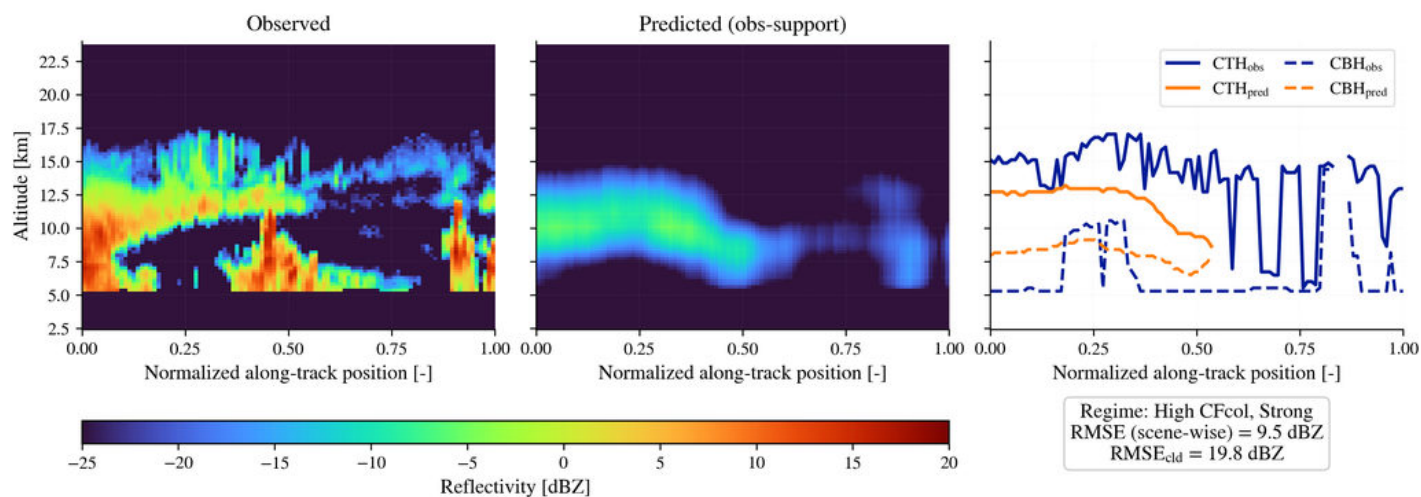


Figure S174. Med CFcol, Weak; observed CFcol = 0.547; maximum observed reflectivity = 4.7 dBZ.

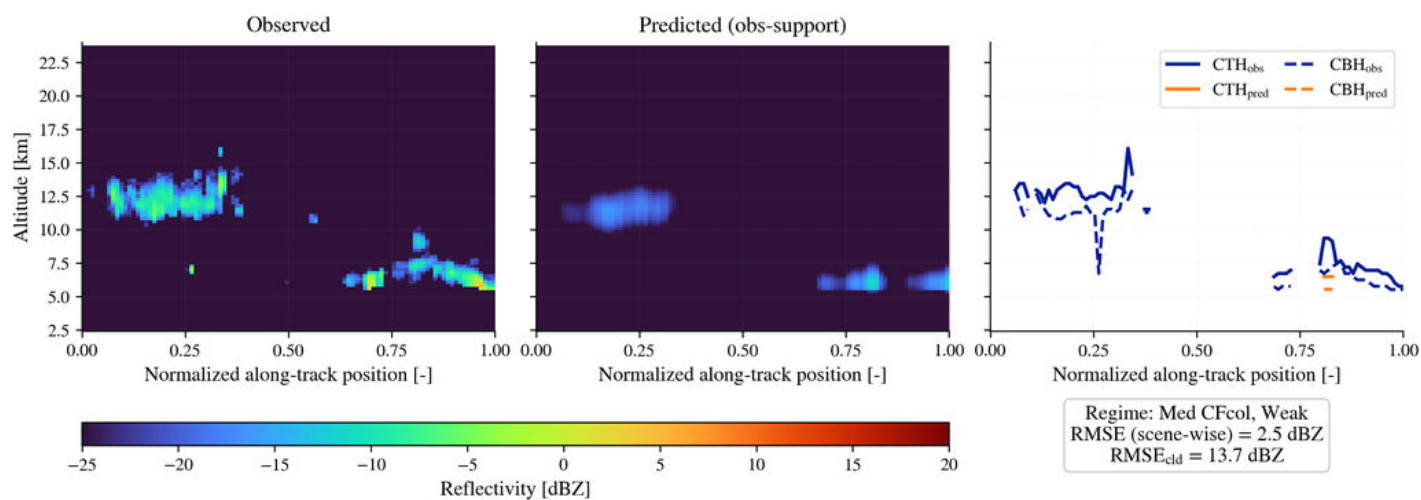


Figure S175. Low CFcol, Strong; observed CFcol = 0.160; maximum observed reflectivity = 17.6 dBZ.

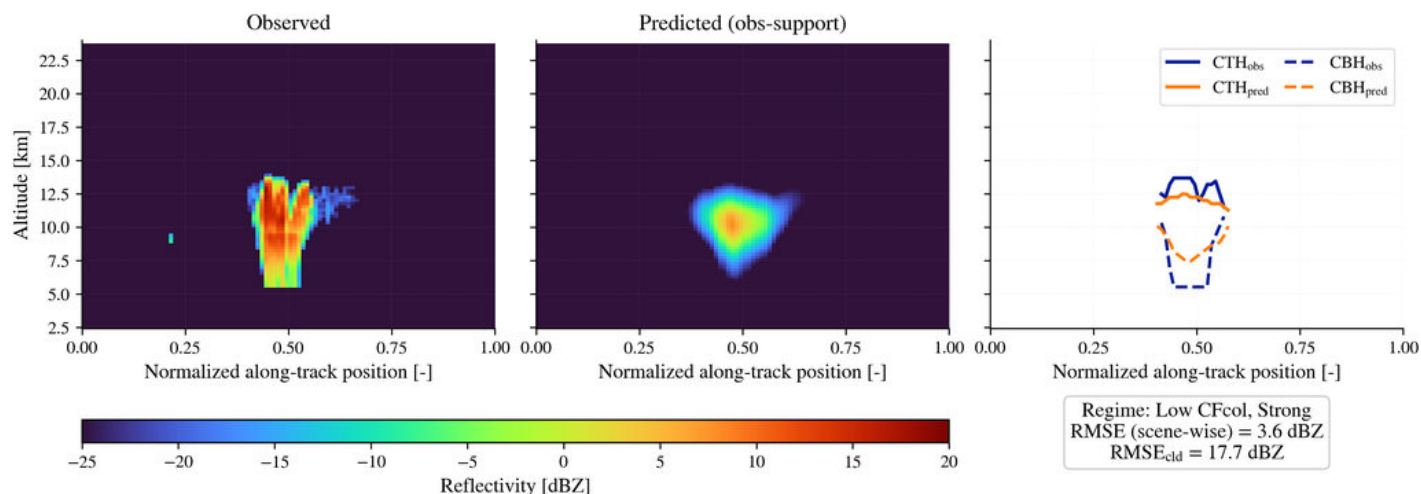


Figure S176. Low CFcol, Strong; observed CFcol = 0.197; maximum observed reflectivity = 17.5 dBZ.

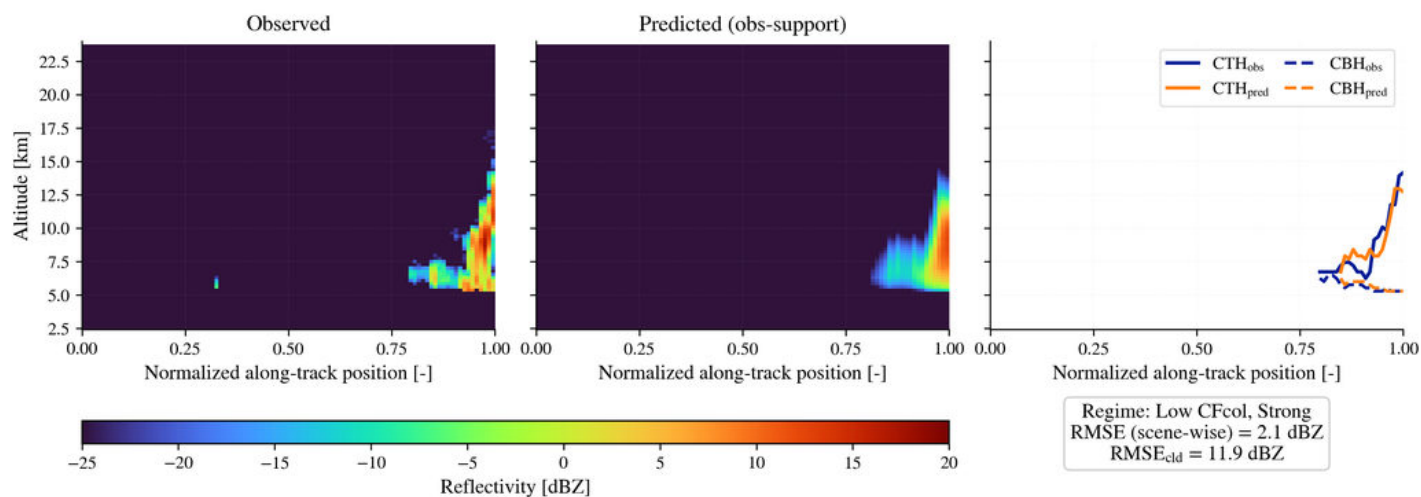


Figure S177. High CFcol, Strong; observed CFcol = 0.728; maximum observed reflectivity = 17.1 dBZ.

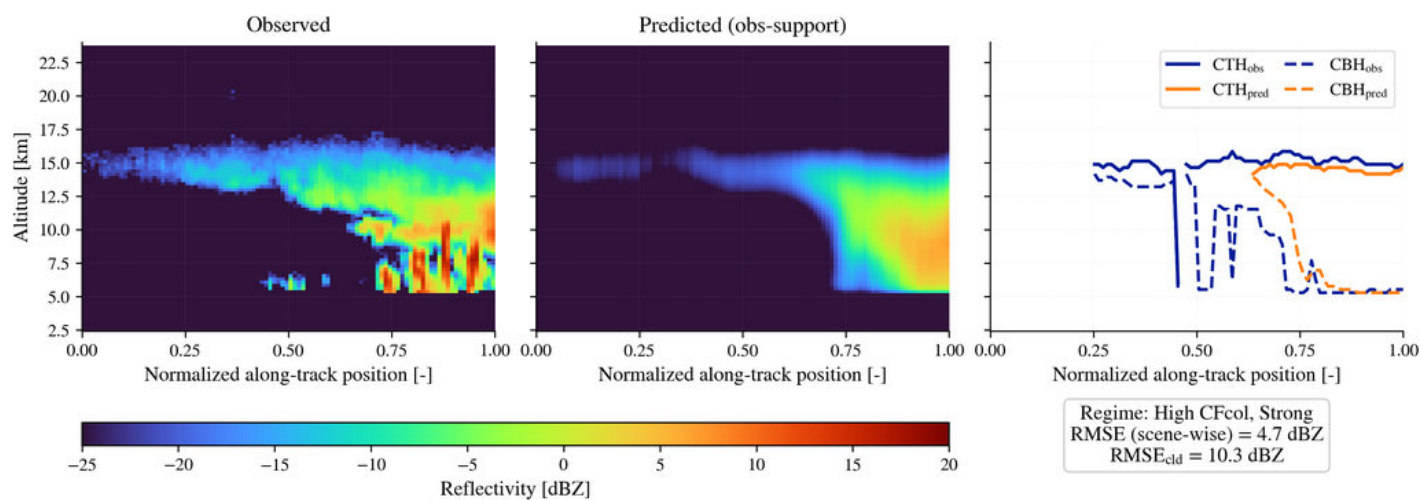


Figure S178. Low CFcol, Weak; observed CFcol = 0.189; maximum observed reflectivity = 3.2 dBZ.

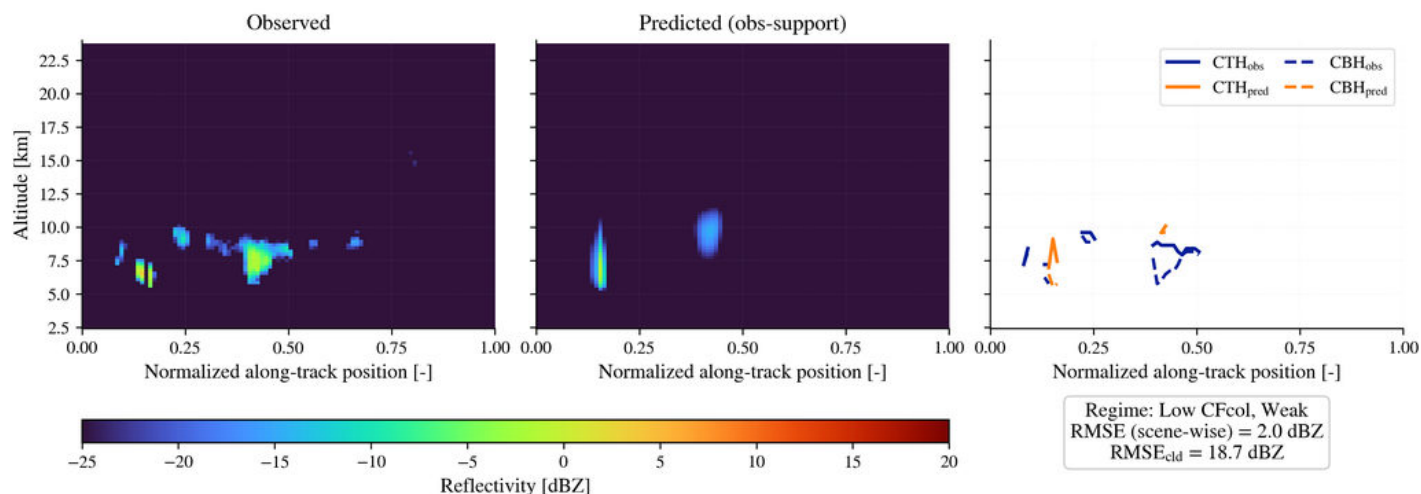


Figure S179. High CFcol, Weak; observed CFcol = 0.646; maximum observed reflectivity = 3.3 dBZ.

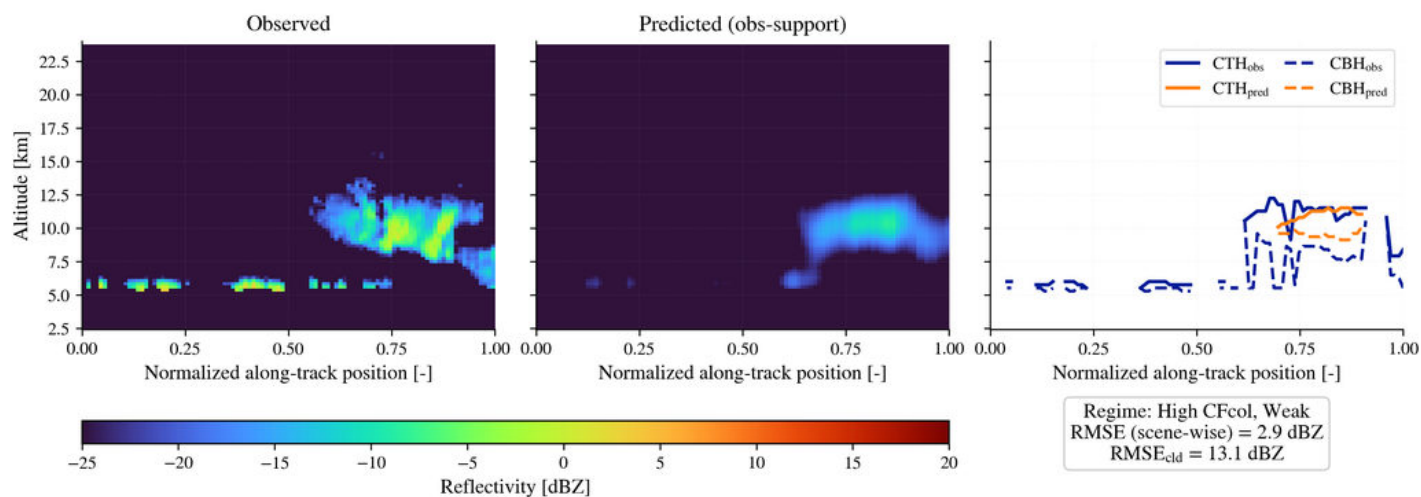


Figure S180. Low CFcol, Strong; observed CFcol = 0.172; maximum observed reflectivity = 15.2 dBZ.

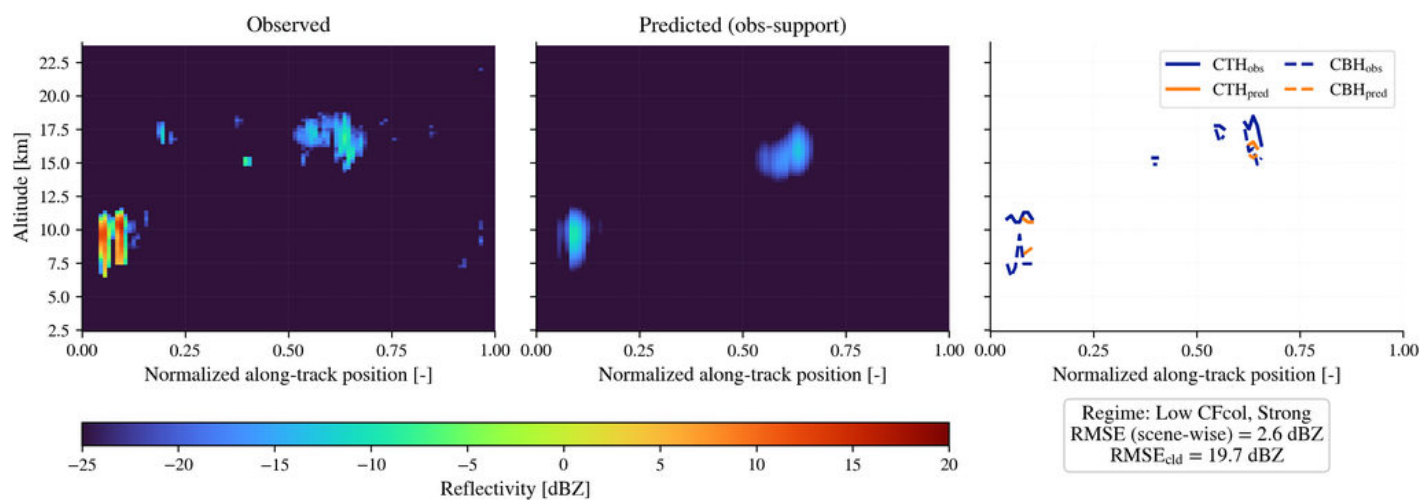


Figure S181. High CFcol, Strong; observed CFcol = 0.894; maximum observed reflectivity = 16.6 dBZ.

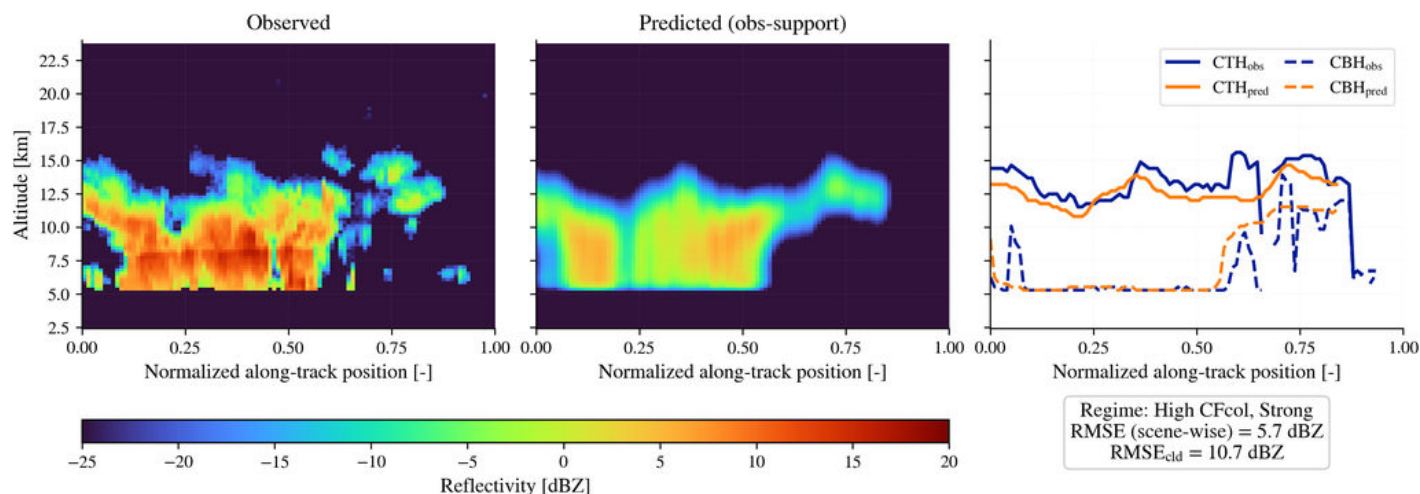


Figure S182. Med CFcol, Strong; observed CFcol = 0.563; maximum observed reflectivity = 15.9 dBZ.

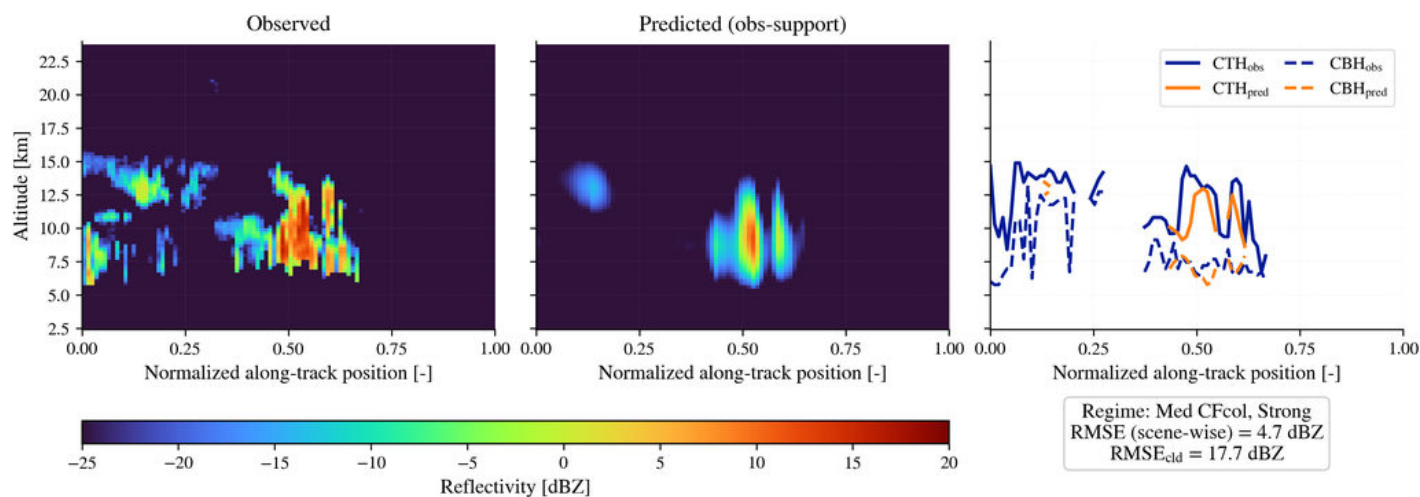


Figure S183. High CFcol, Strong; observed CFcol = 0.942; maximum observed reflectivity = 10.5 dBZ.

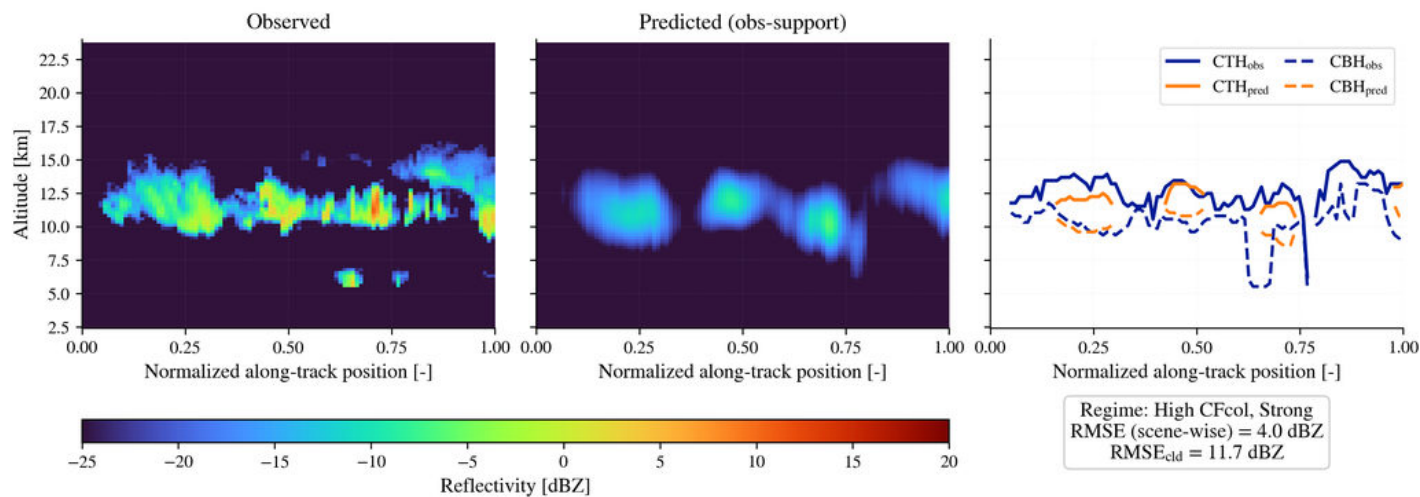


Figure S184. Low CFcol, Strong; observed CFcol = 0.190; maximum observed reflectivity = 15.5 dBZ.

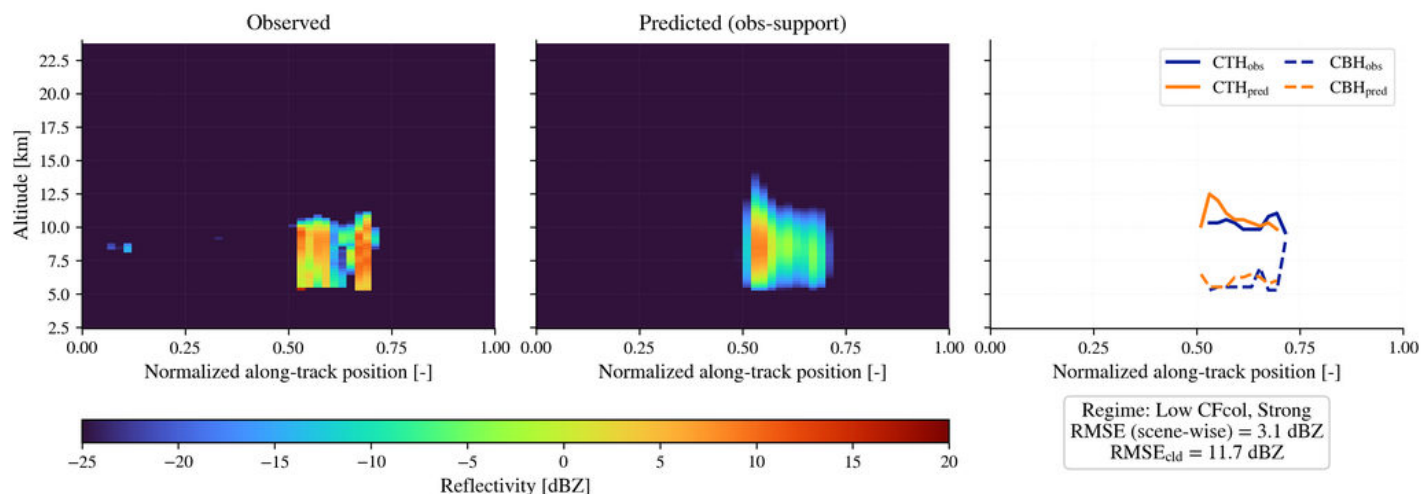


Figure S185. Med CFcol, Weak; observed CFcol = 0.492; maximum observed reflectivity = 3.4 dBZ.

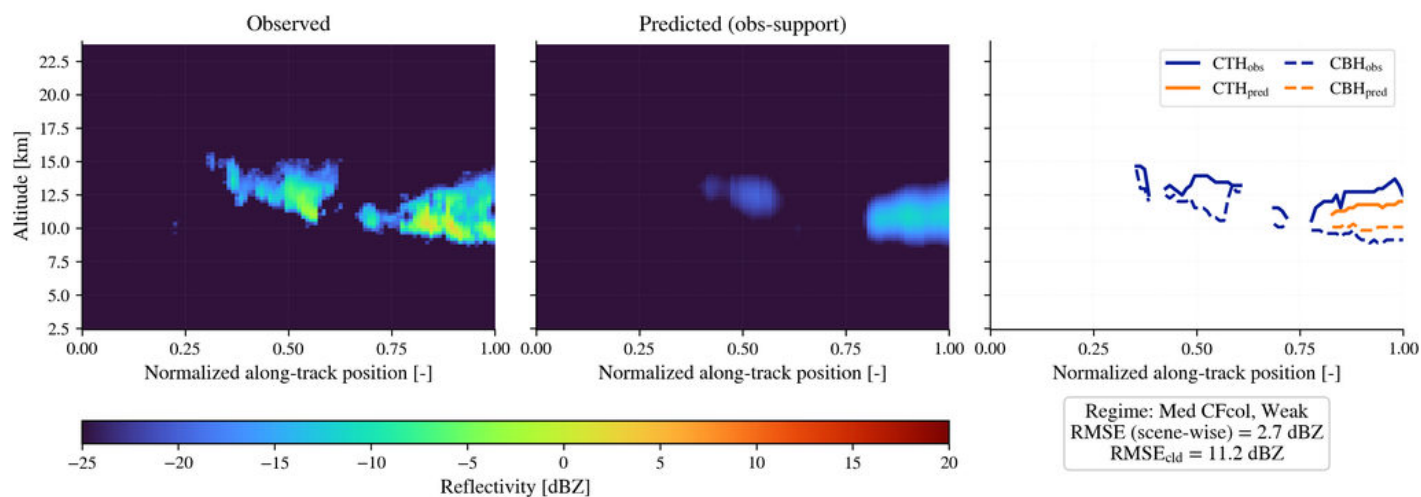


Figure S186. Low CFcol, Strong; observed CFcol = 0.131; maximum observed reflectivity = 14.1 dBZ.

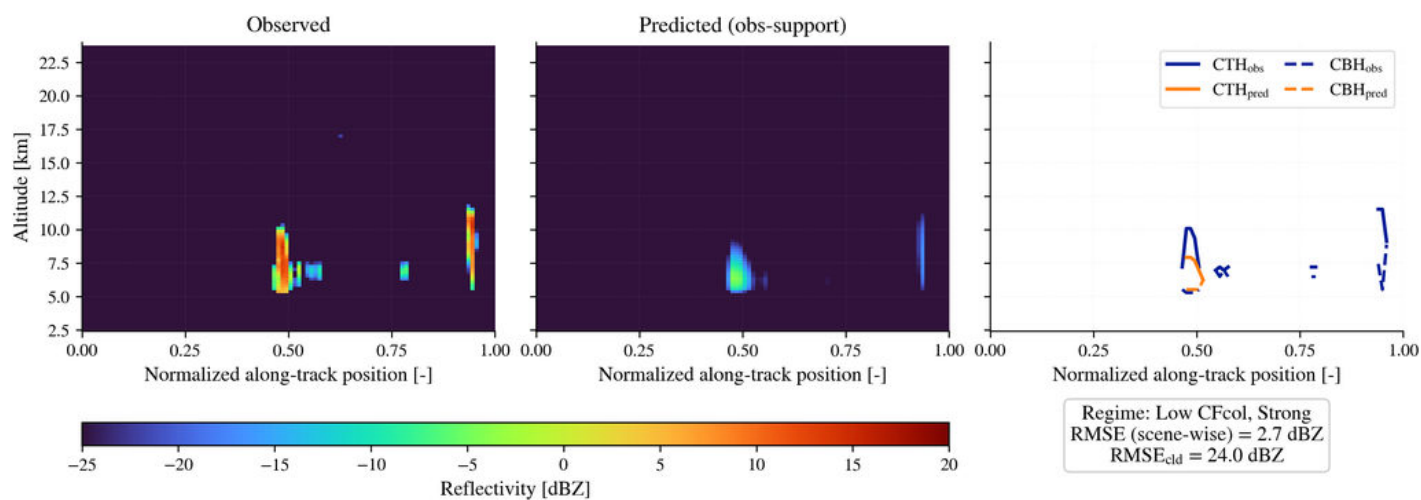


Figure S187. Low CFcol, Weak; observed CFcol = 0.197; maximum observed reflectivity = 3.0 dBZ.

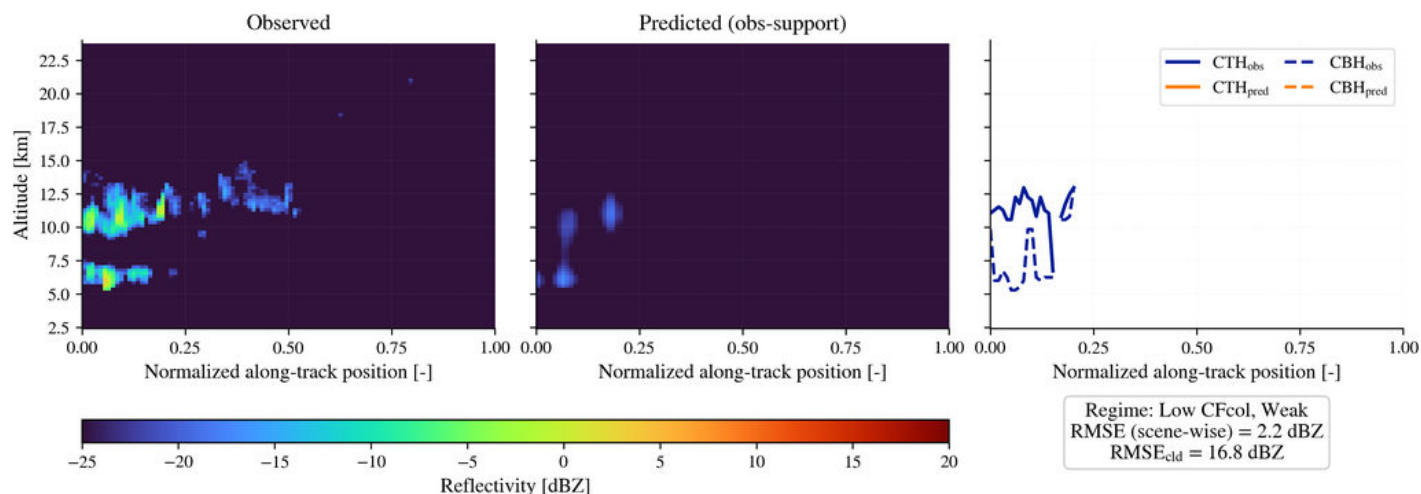


Figure S188. Low CFcol, Strong; observed CFcol = 0.161; maximum observed reflectivity = 14.0 dBZ.

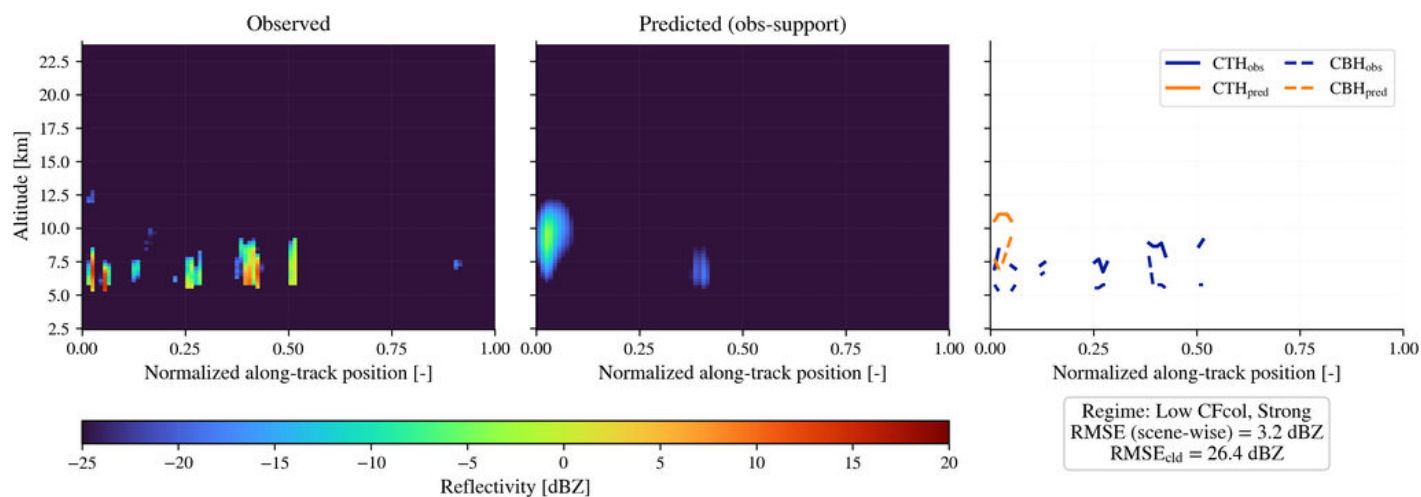


Figure S189. Med CFcol, Weak; observed CFcol = 0.250; maximum observed reflectivity = 3.5 dBZ.

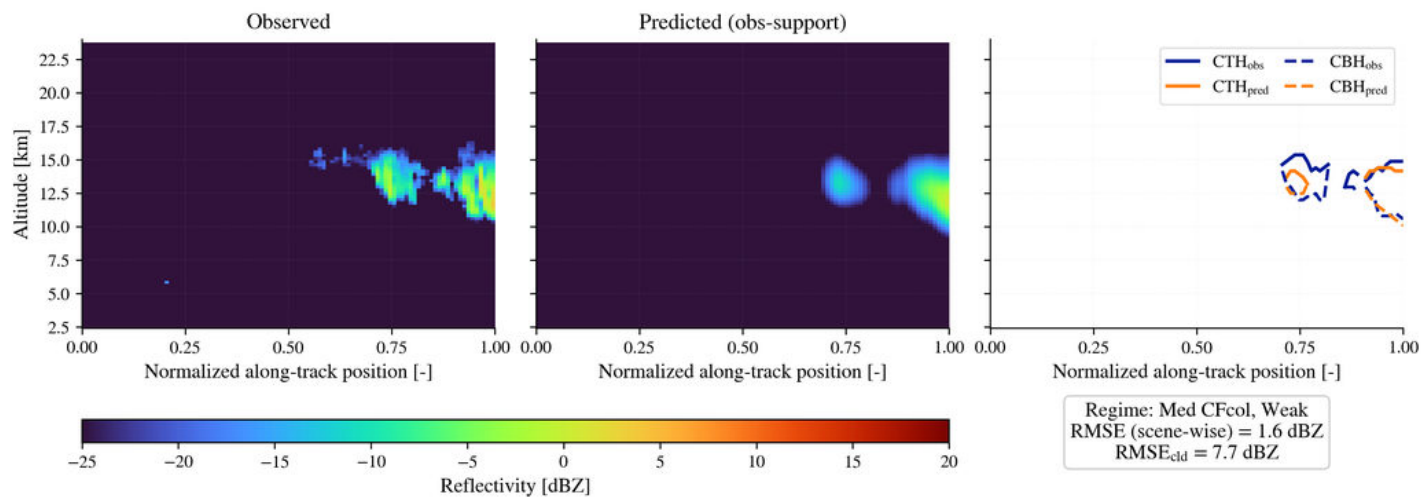


Figure S190. Med CFcol, Weak; observed CFcol = 0.348; maximum observed reflectivity = 1.9 dBZ.

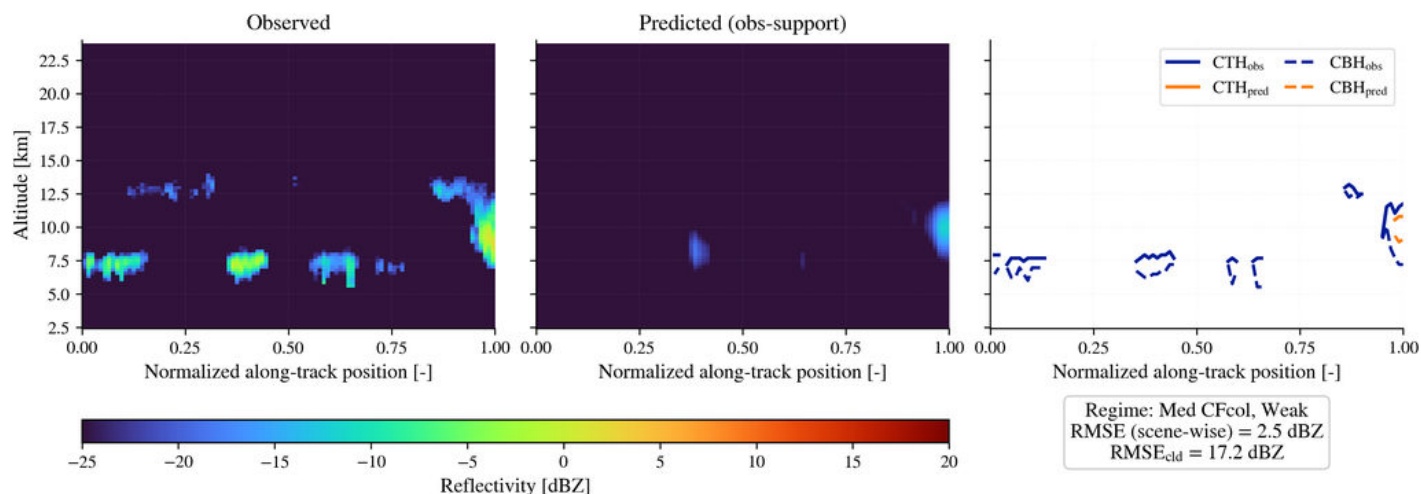


Figure S191. Med CFcol, Strong; observed CFcol = 0.578; maximum observed reflectivity = 15.8 dBZ.

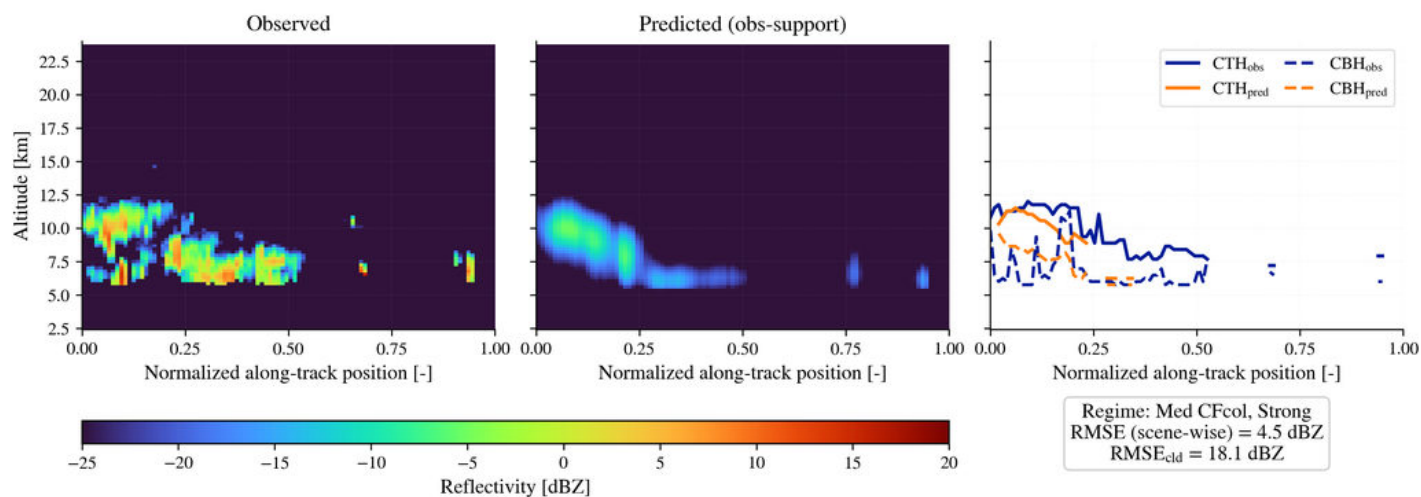


Figure S192. Med CFcol, Strong; observed CFcol = 0.359; maximum observed reflectivity = 17.0 dBZ.

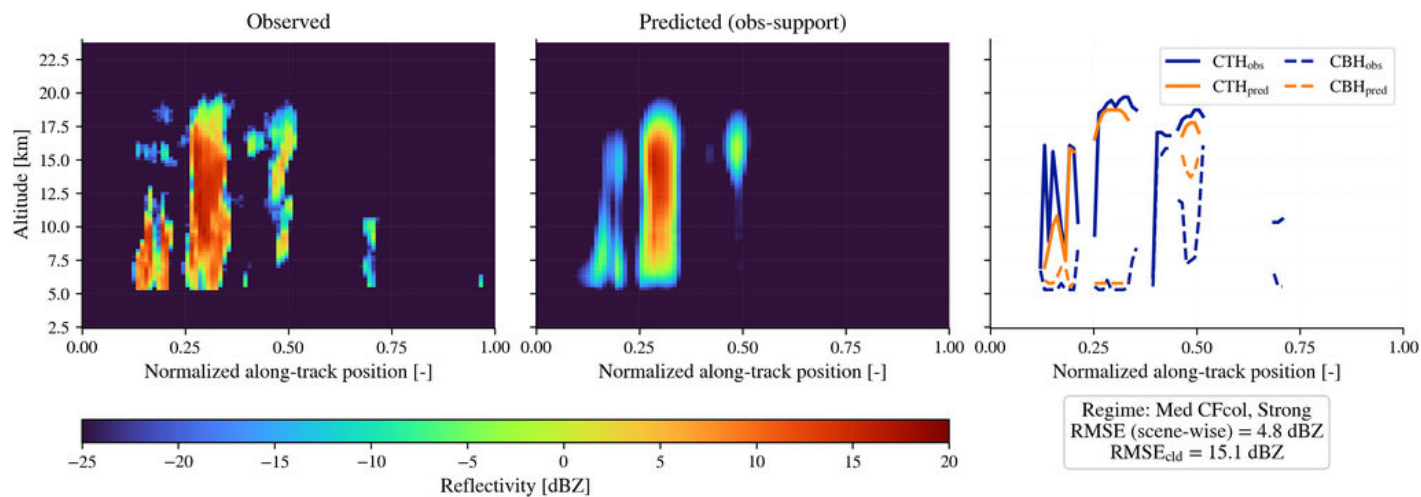


Figure S193. High CFcol, Weak; observed CFcol = 0.689; maximum observed reflectivity = 2.4 dBZ.

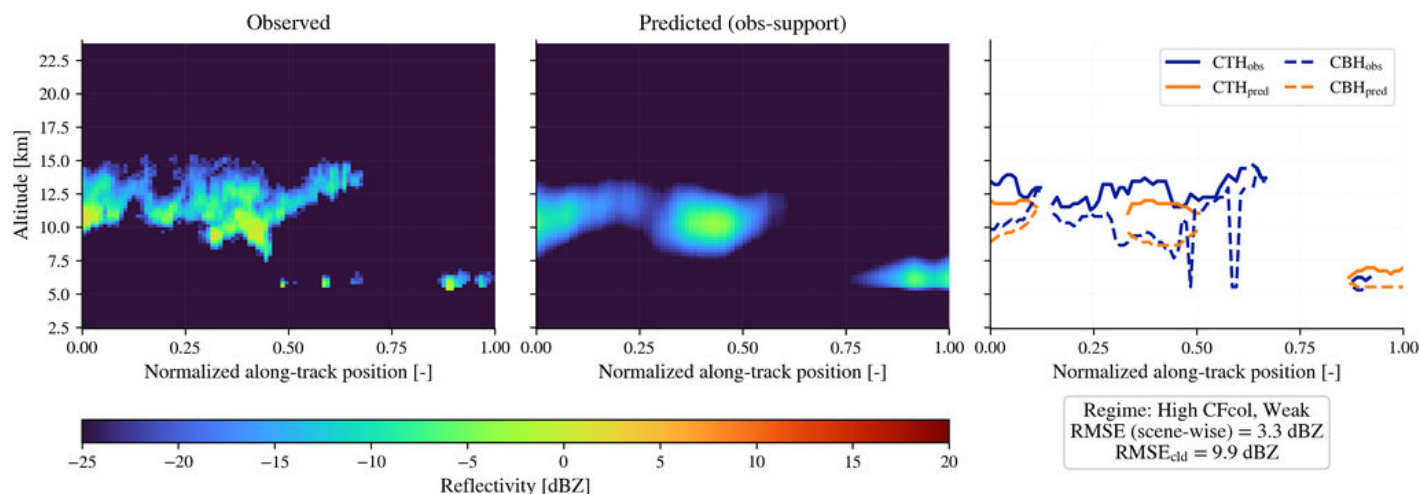


Figure S194. High CFcol, Weak; observed CFcol = 0.758; maximum observed reflectivity = 4.4 dBZ.

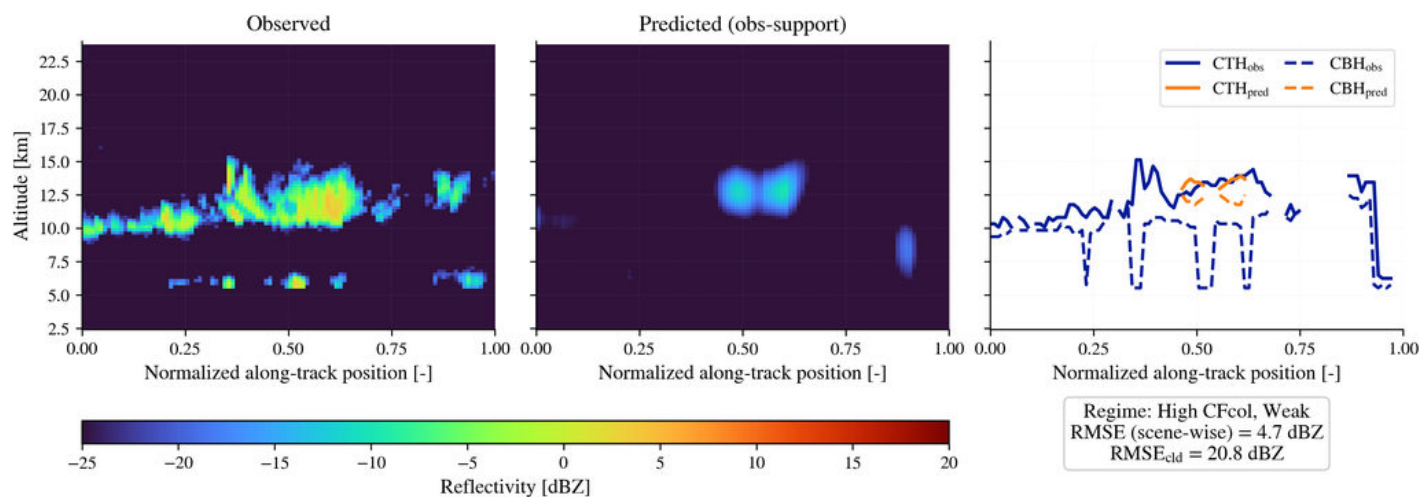


Figure S195. High CFcol, Weak; observed CFcol = 0.866; maximum observed reflectivity = 3.1 dBZ.

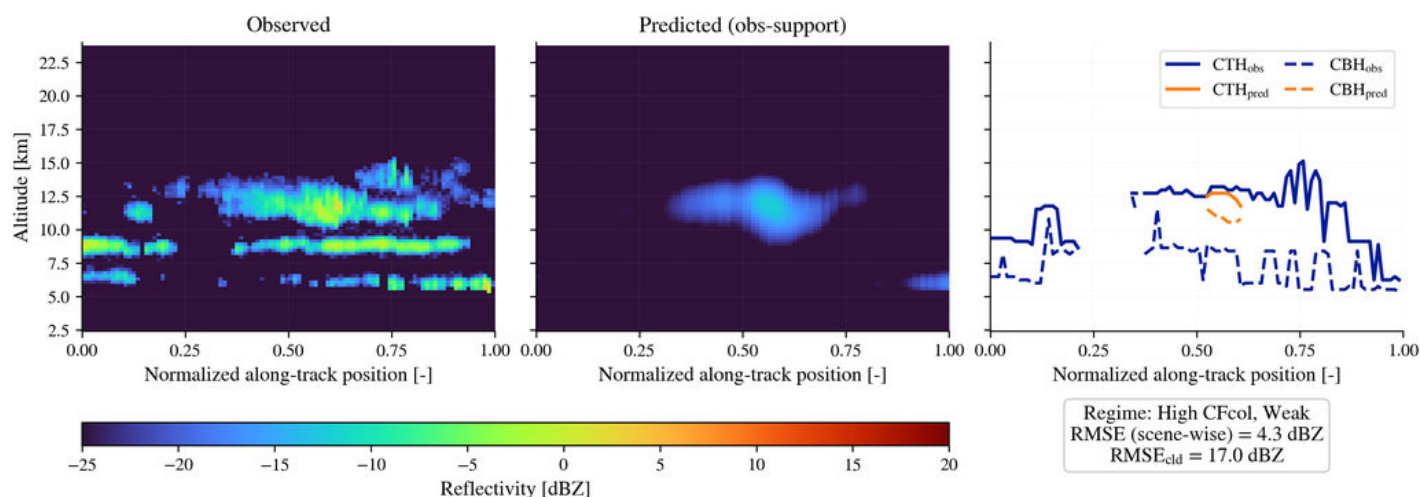


Figure S196. High CFcol, Weak; observed CFcol = 0.815; maximum observed reflectivity = 2.2 dBZ.

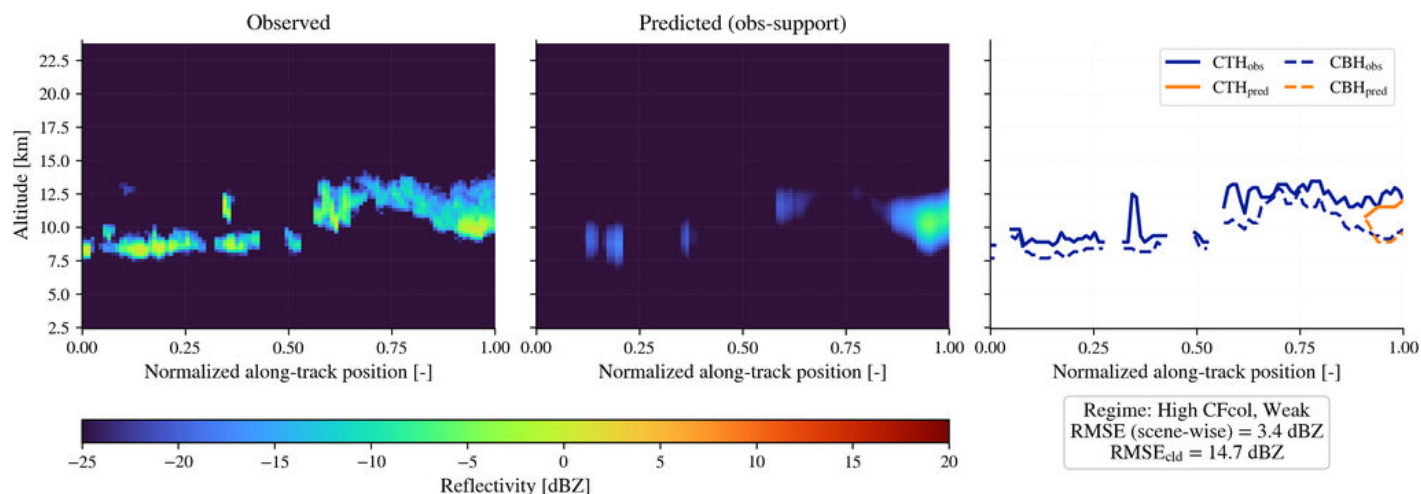


Figure S197. Low CFcol, Weak; observed CFcol = 0.143; maximum observed reflectivity = 4.4 dBZ.

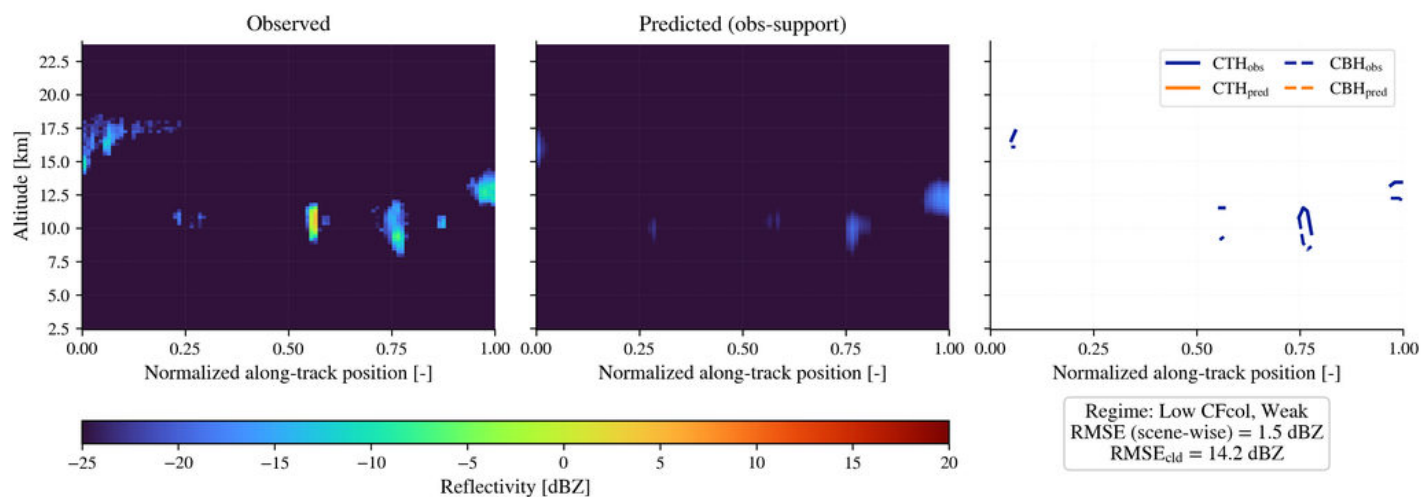


Figure S198. High CFcol, Weak; observed CFcol = 0.698; maximum observed reflectivity = -0.7 dBZ.

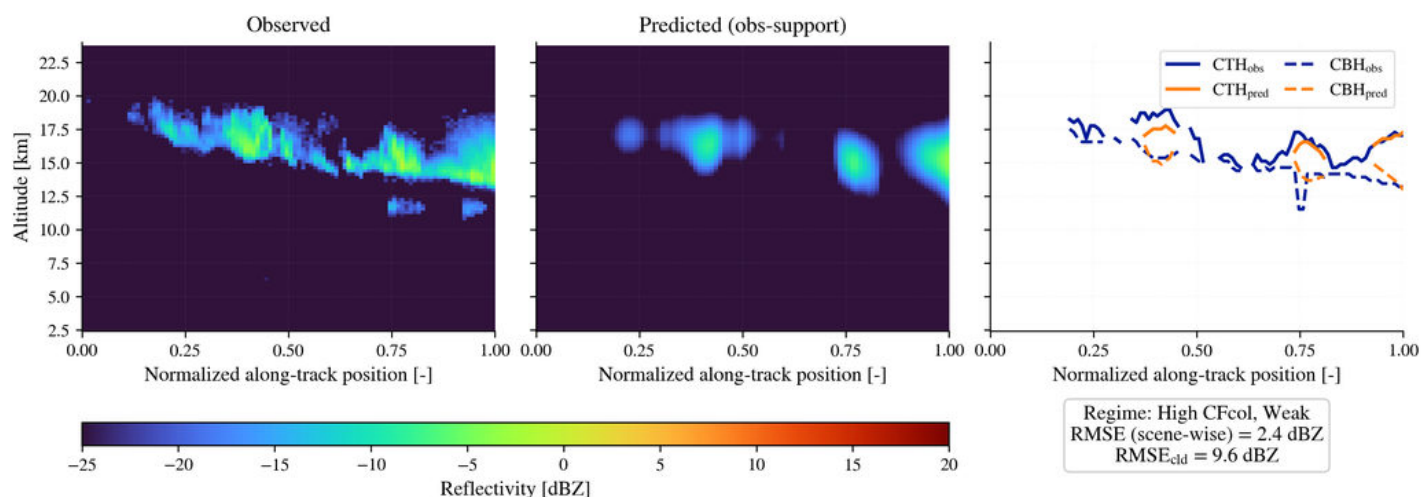


Figure S199. High CFcol, Weak; observed CFcol = 0.817; maximum observed reflectivity = 1.9 dBZ.

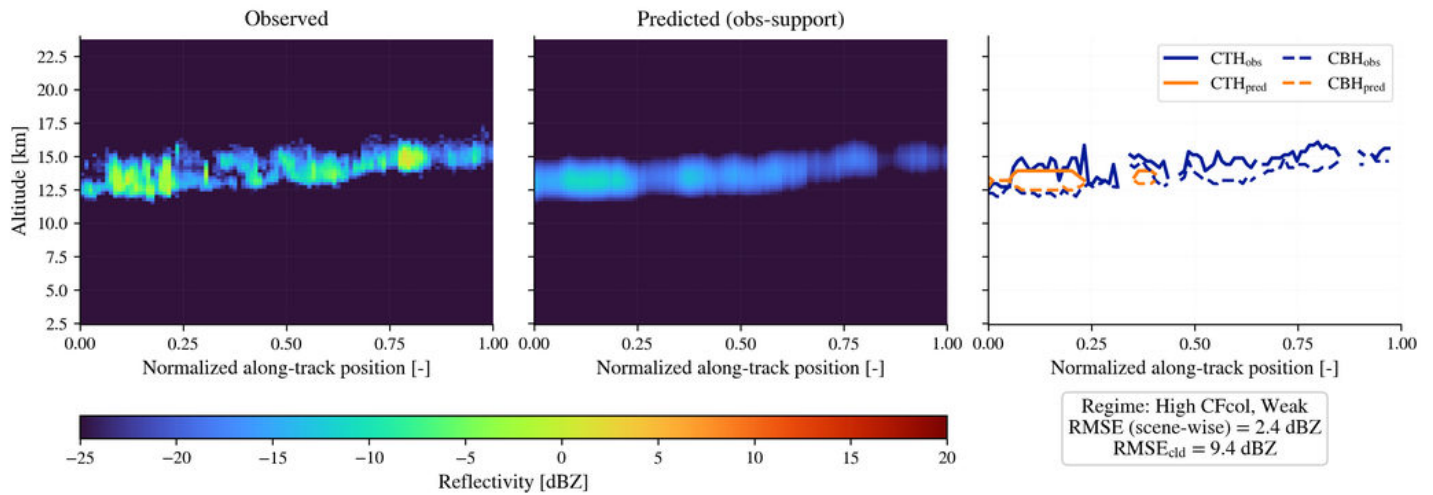


Figure S200. Med CFcol, Weak; observed CFcol = 0.231; maximum observed reflectivity = -5.4 dBZ.

