List of Figures

1 Supplement A:

Factsheets of GHGs other than CO_2, CH_4 and N_2O

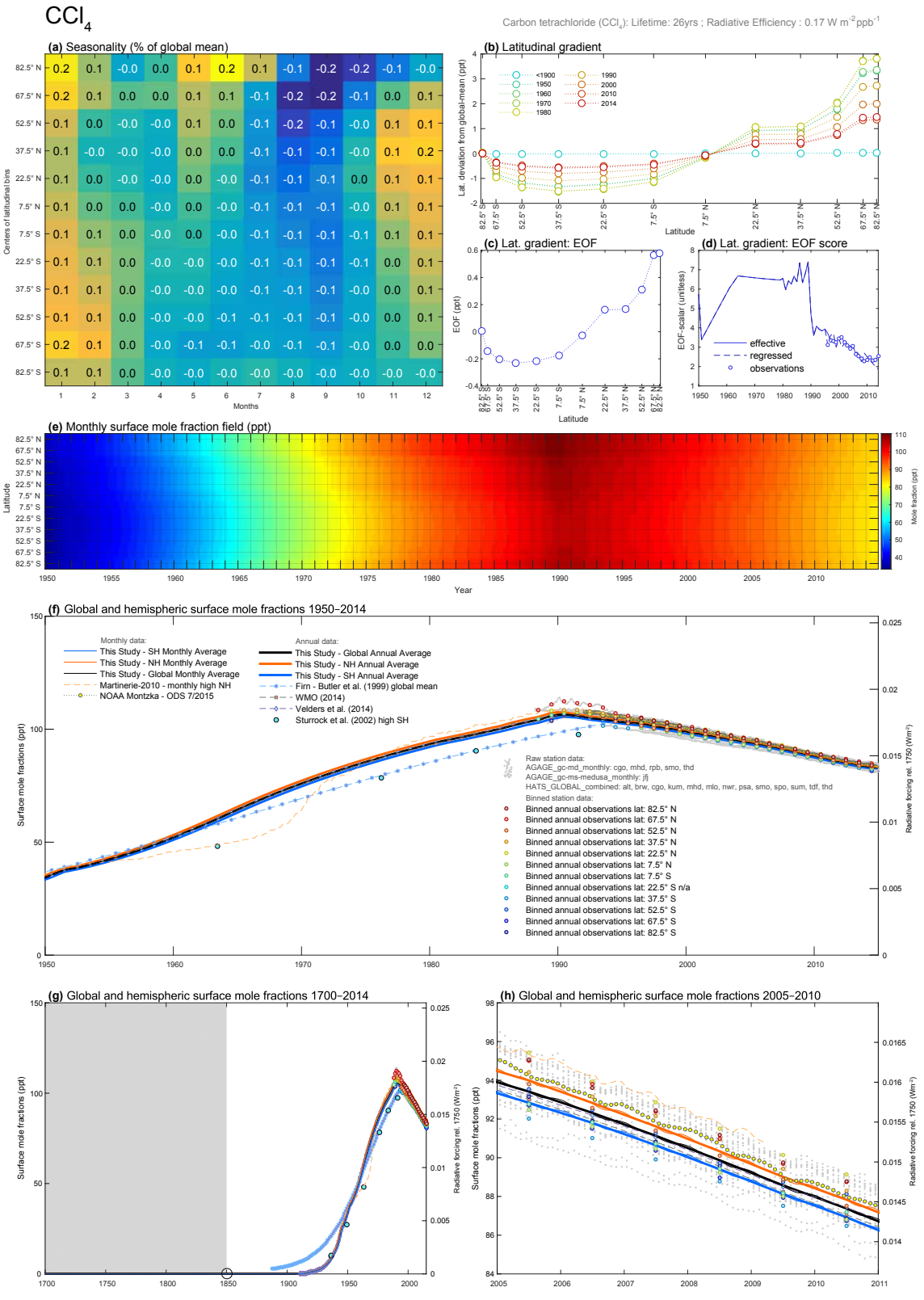


Figure S1. CCl_4 Factsheet

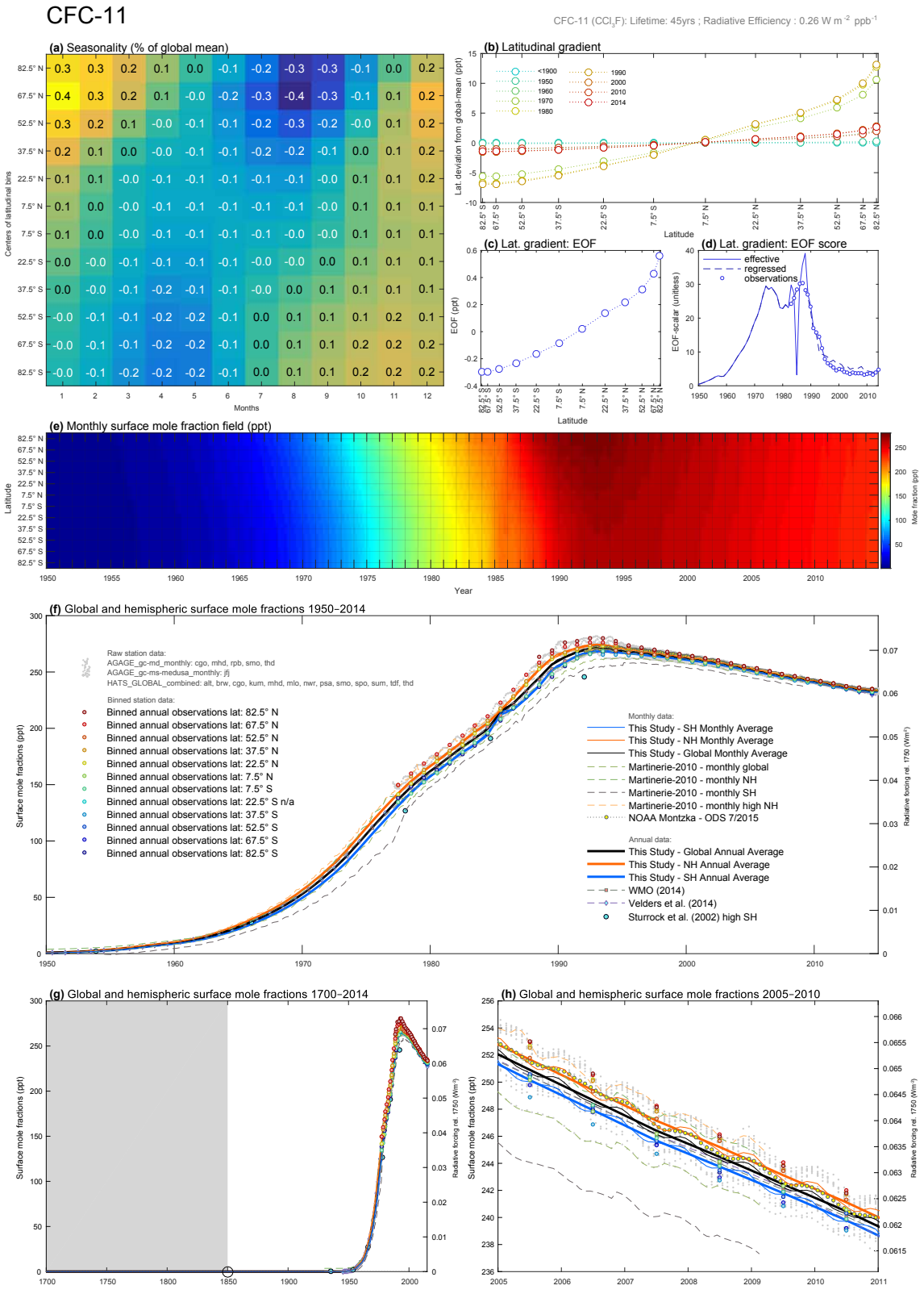


Figure S2. CFC-11 Factsheet

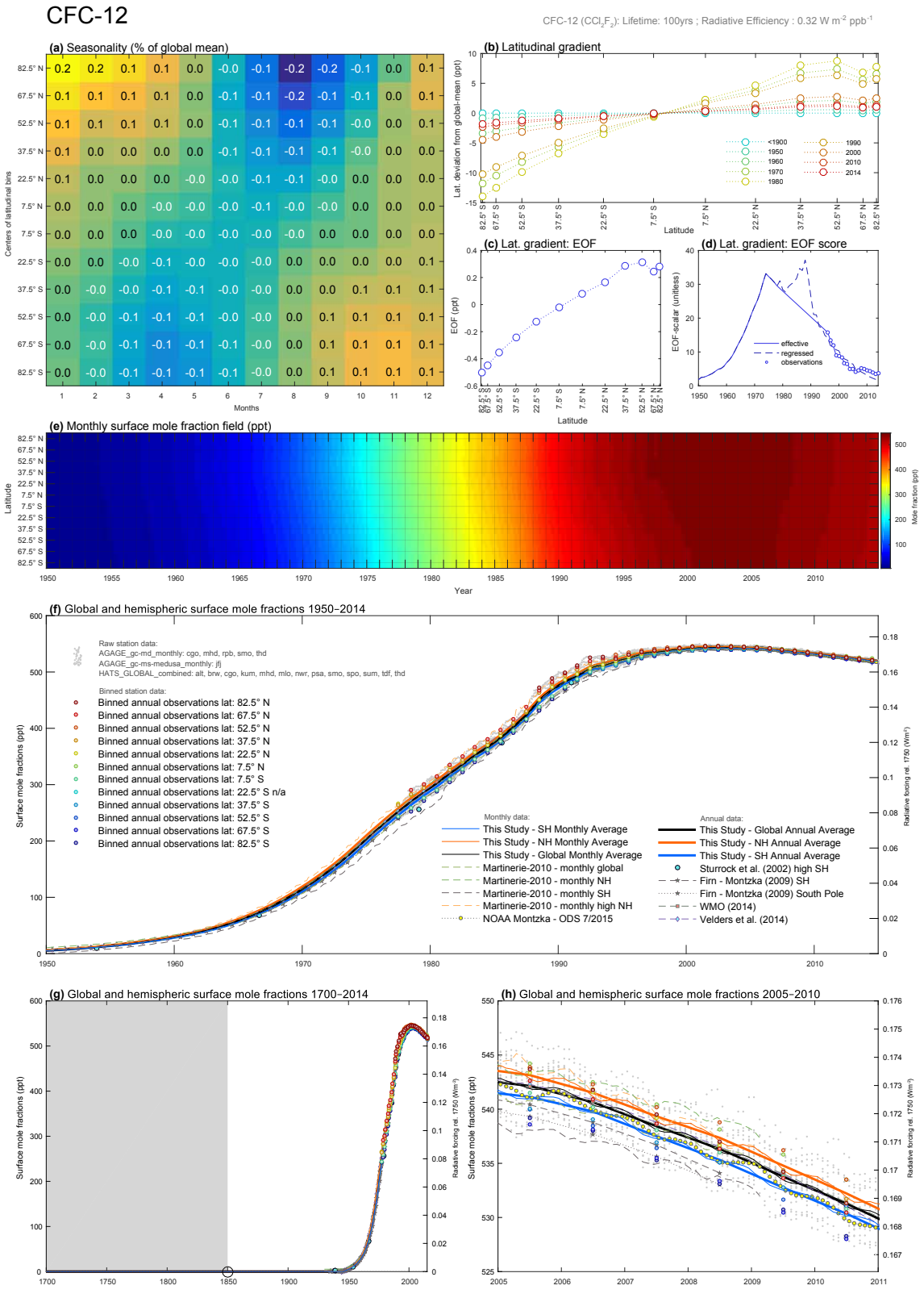


Figure S3. CFC-12 Factsheet

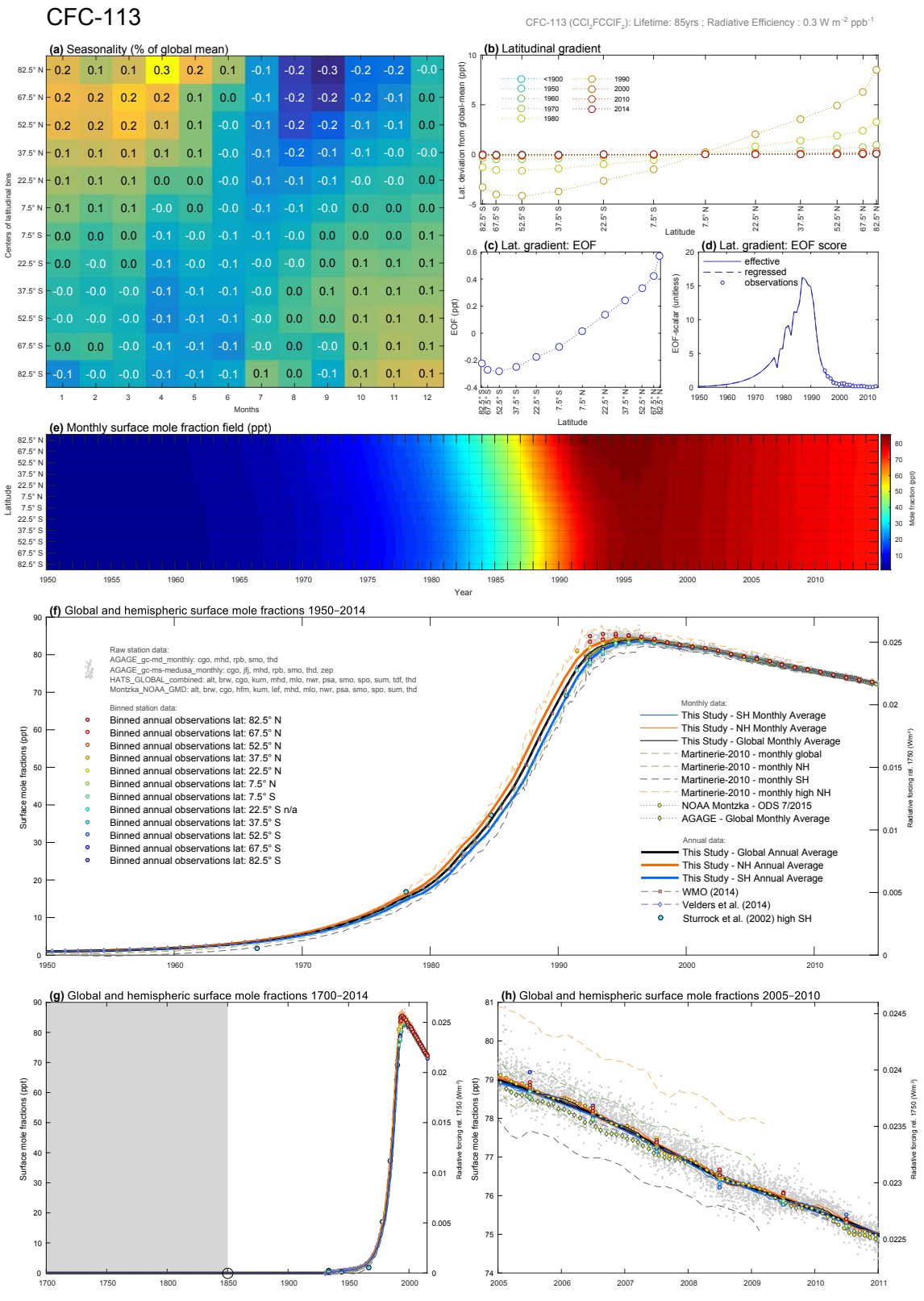


Figure S4. CFC-113 Factsheet

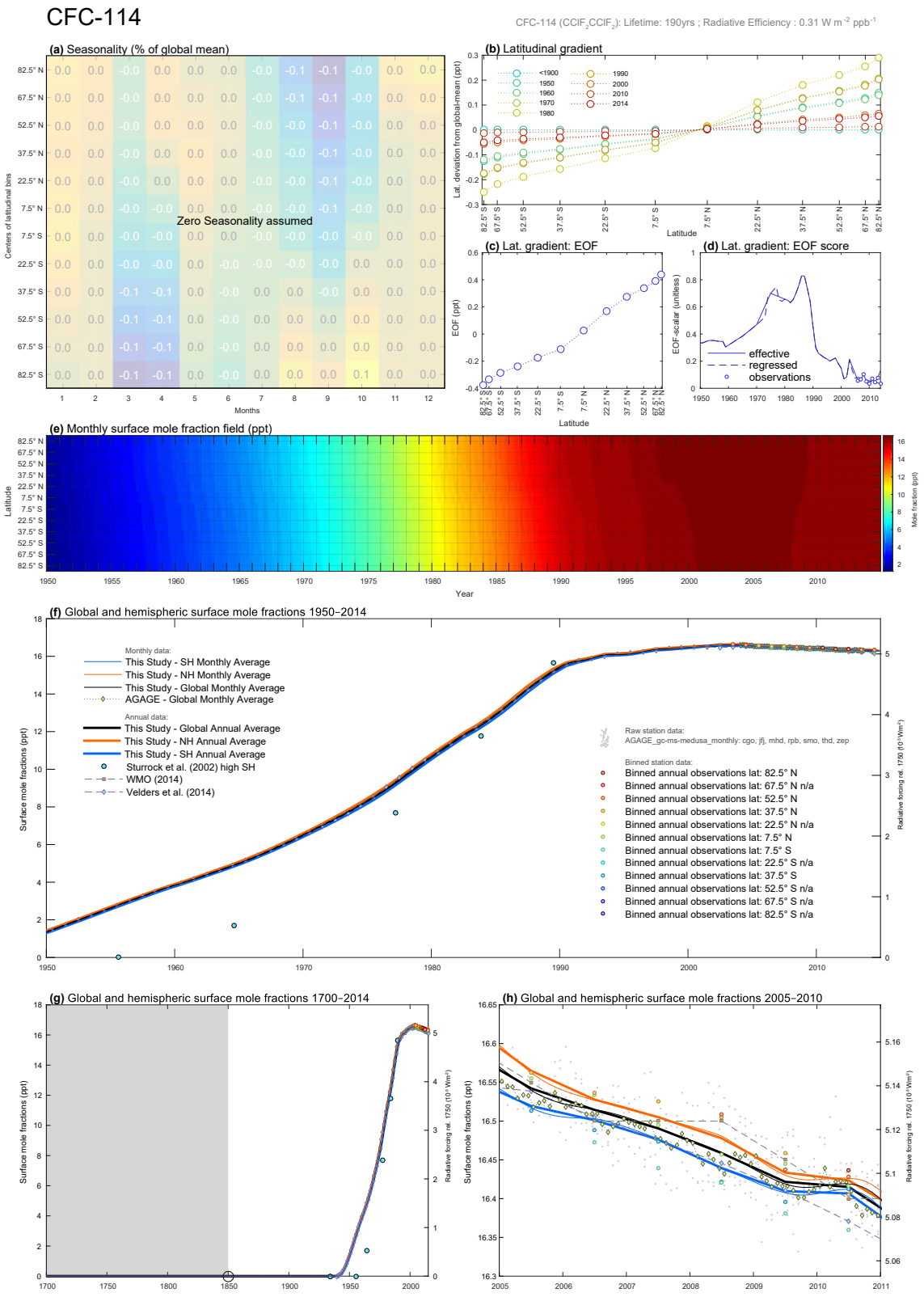
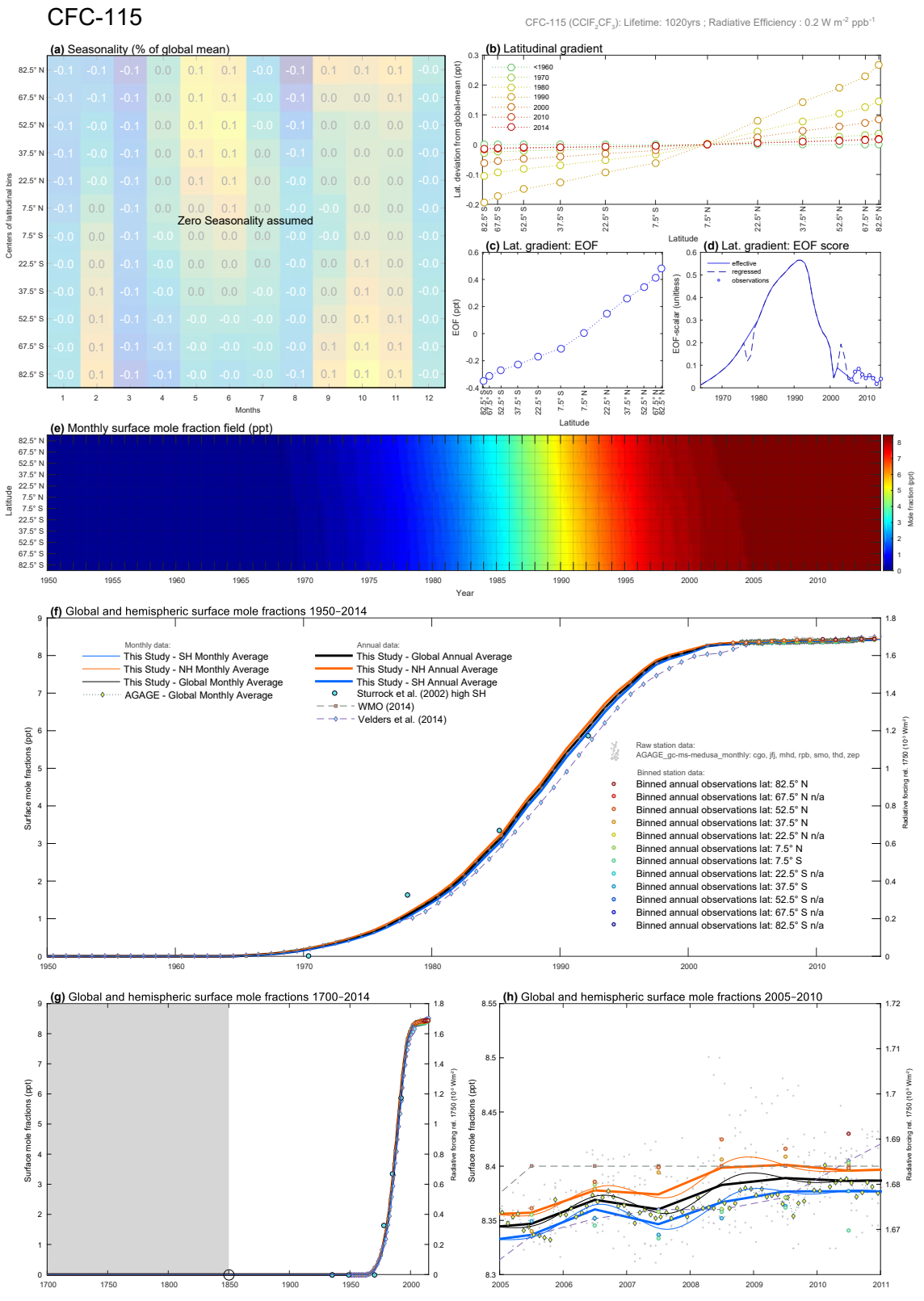


Figure S5. CFC-114 Factsheet



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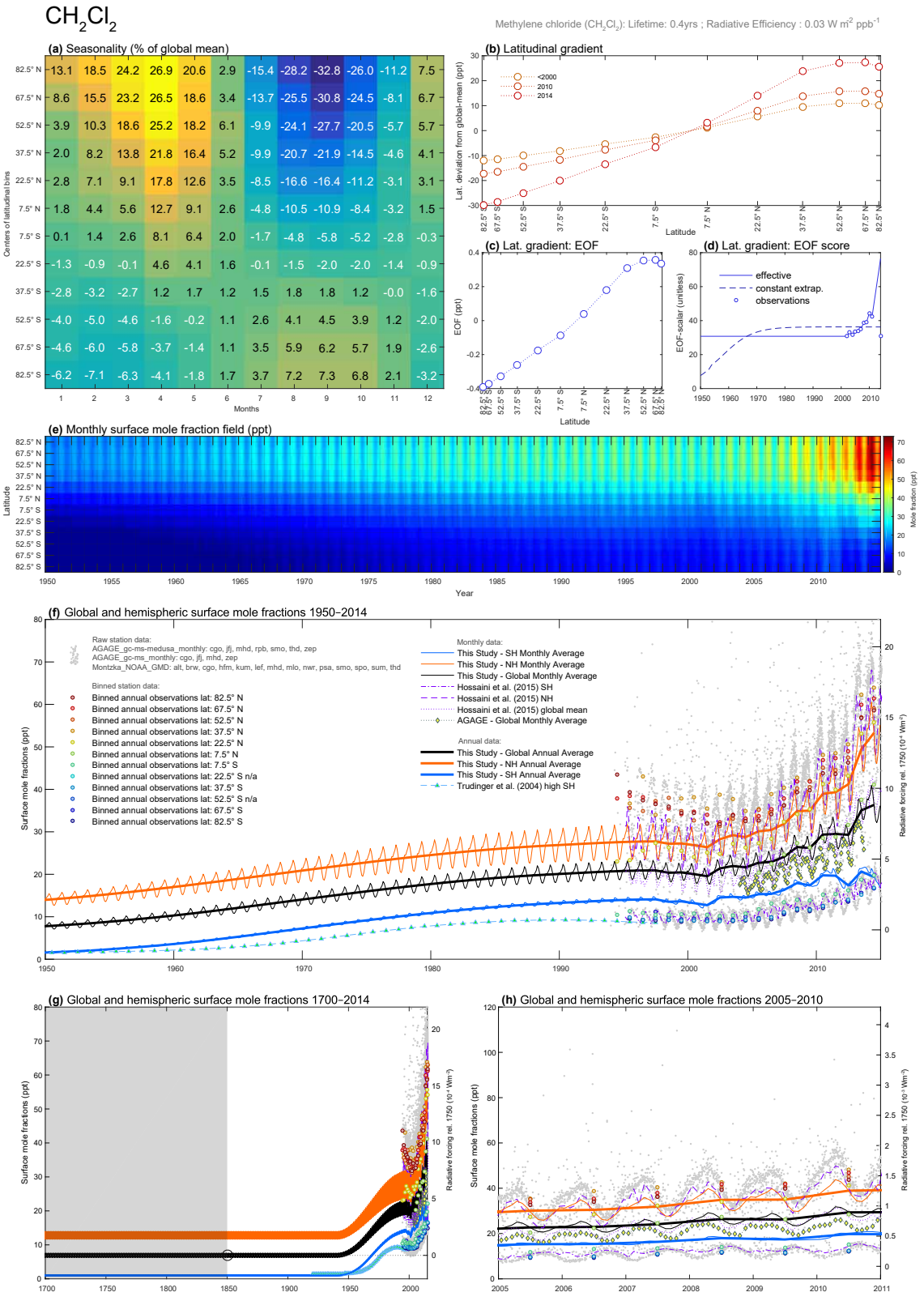


Figure S7. CH_2Cl_2 Factsheet

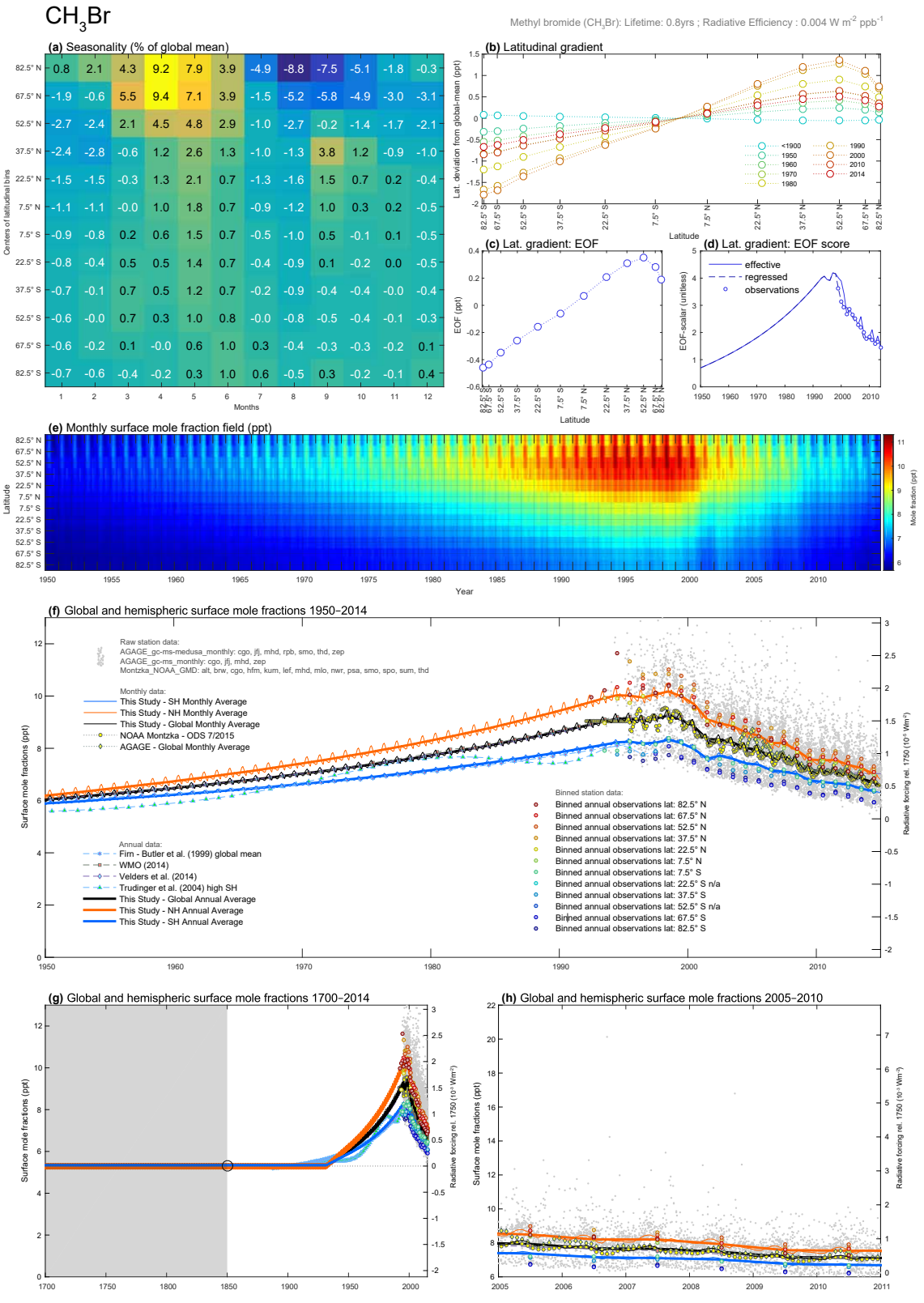


Figure S8. CH_3Br Factsheet

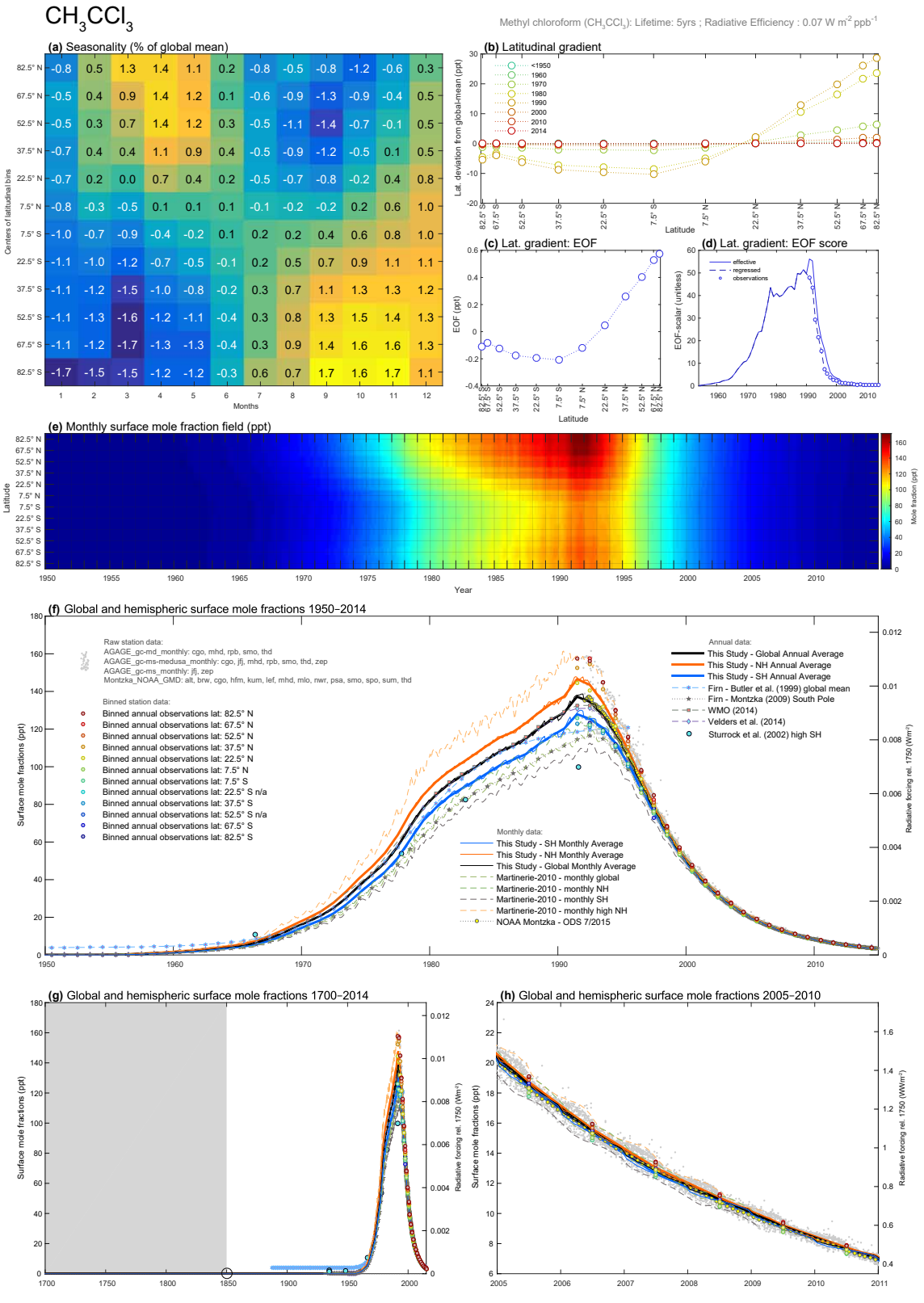


Figure S9. CH_3CCl_3 Factsheet

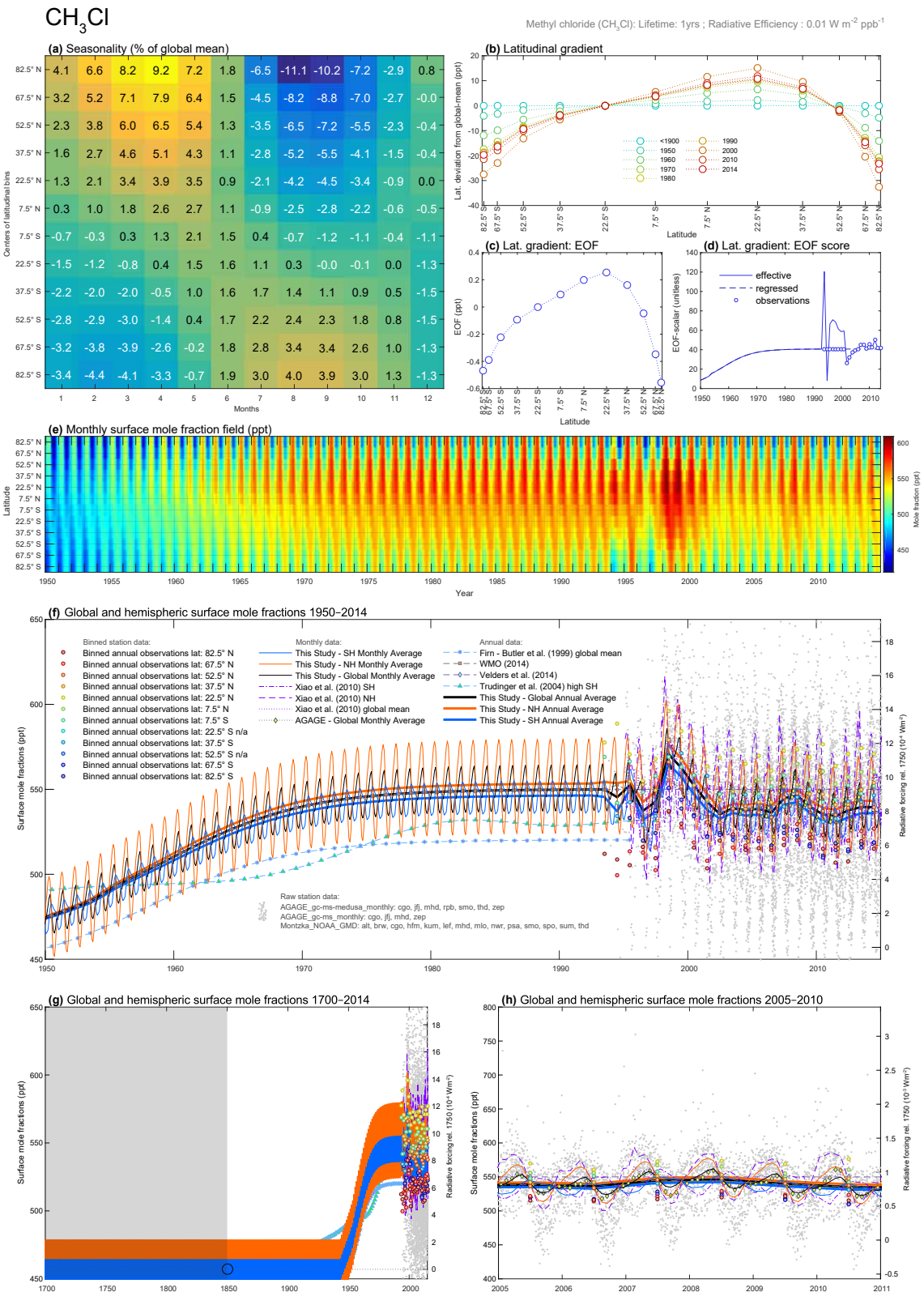


Figure S10. CH_3Cl Factsheet

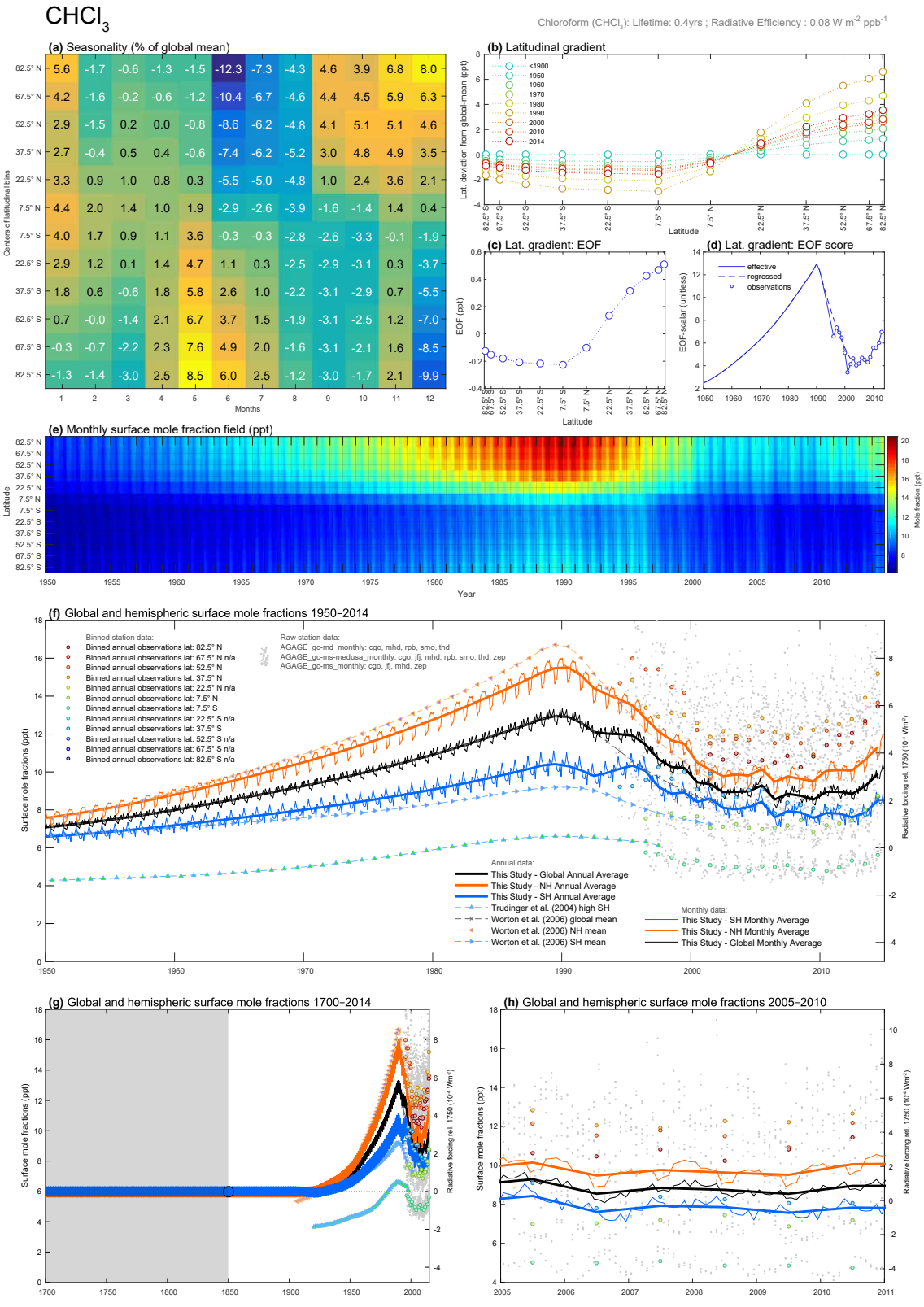


Figure S11. $CHCl_3$ Factsheet

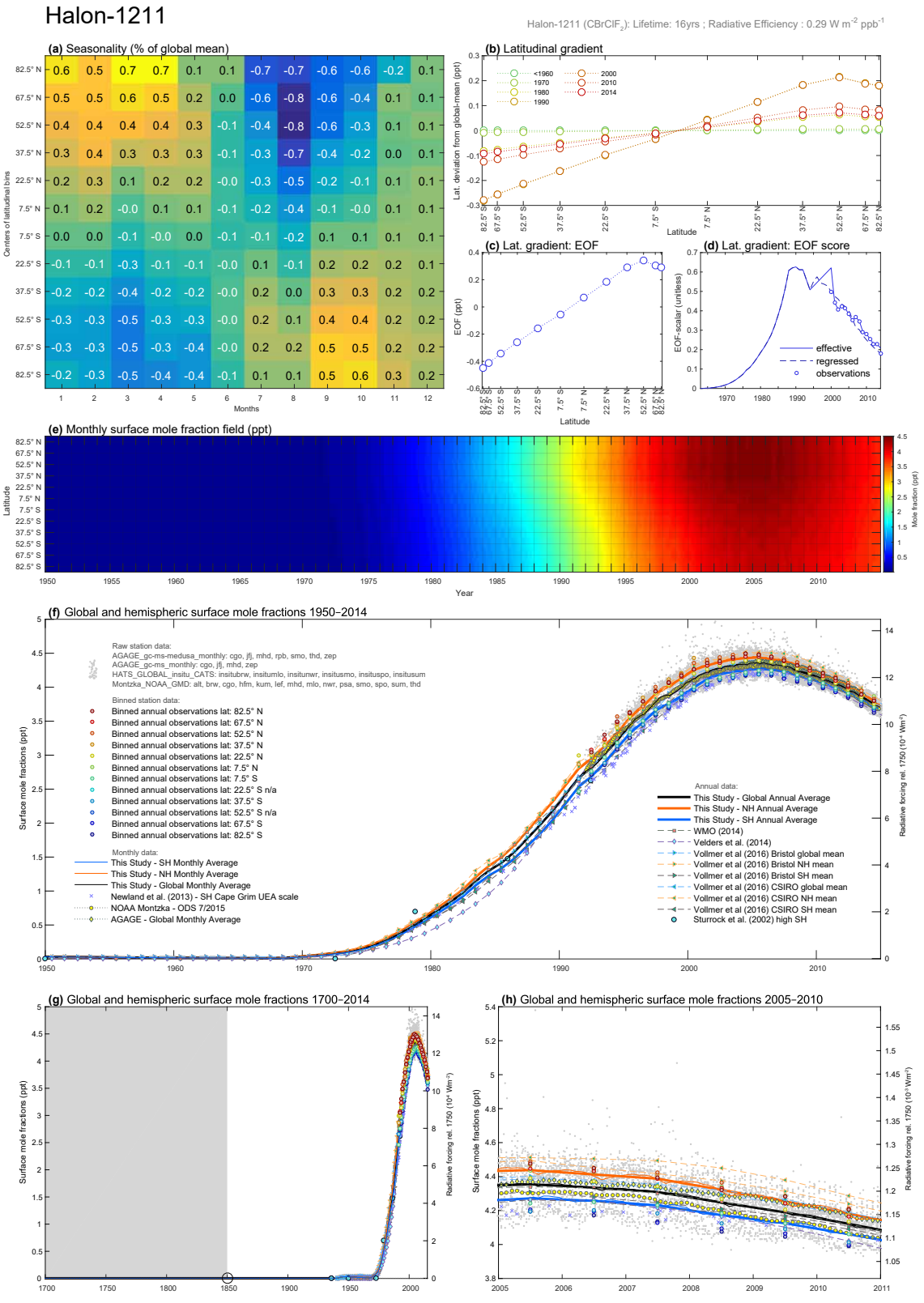


Figure S12. Halon-1211 Factsheet

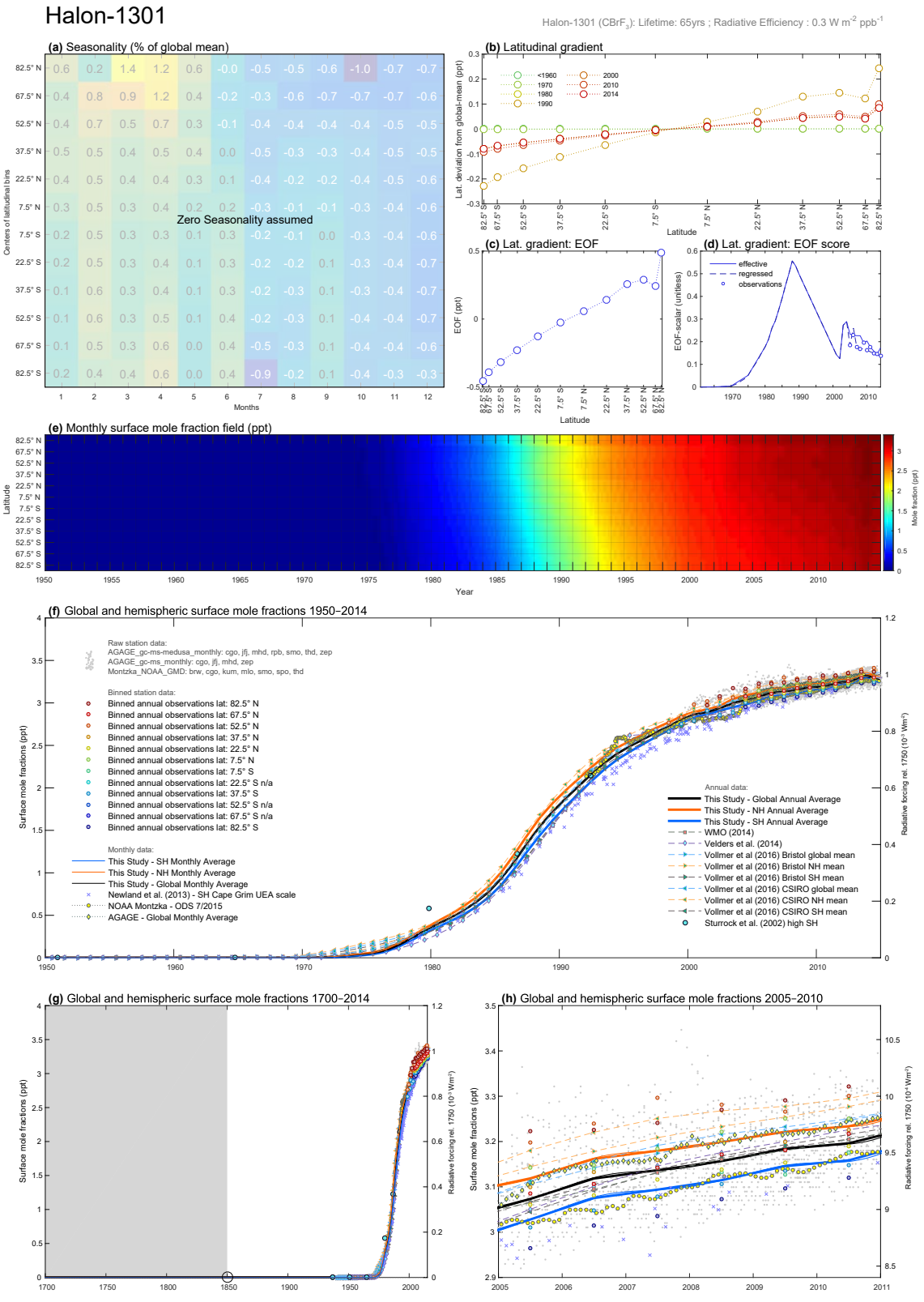


Figure S13. Halon-1301 Factsheet

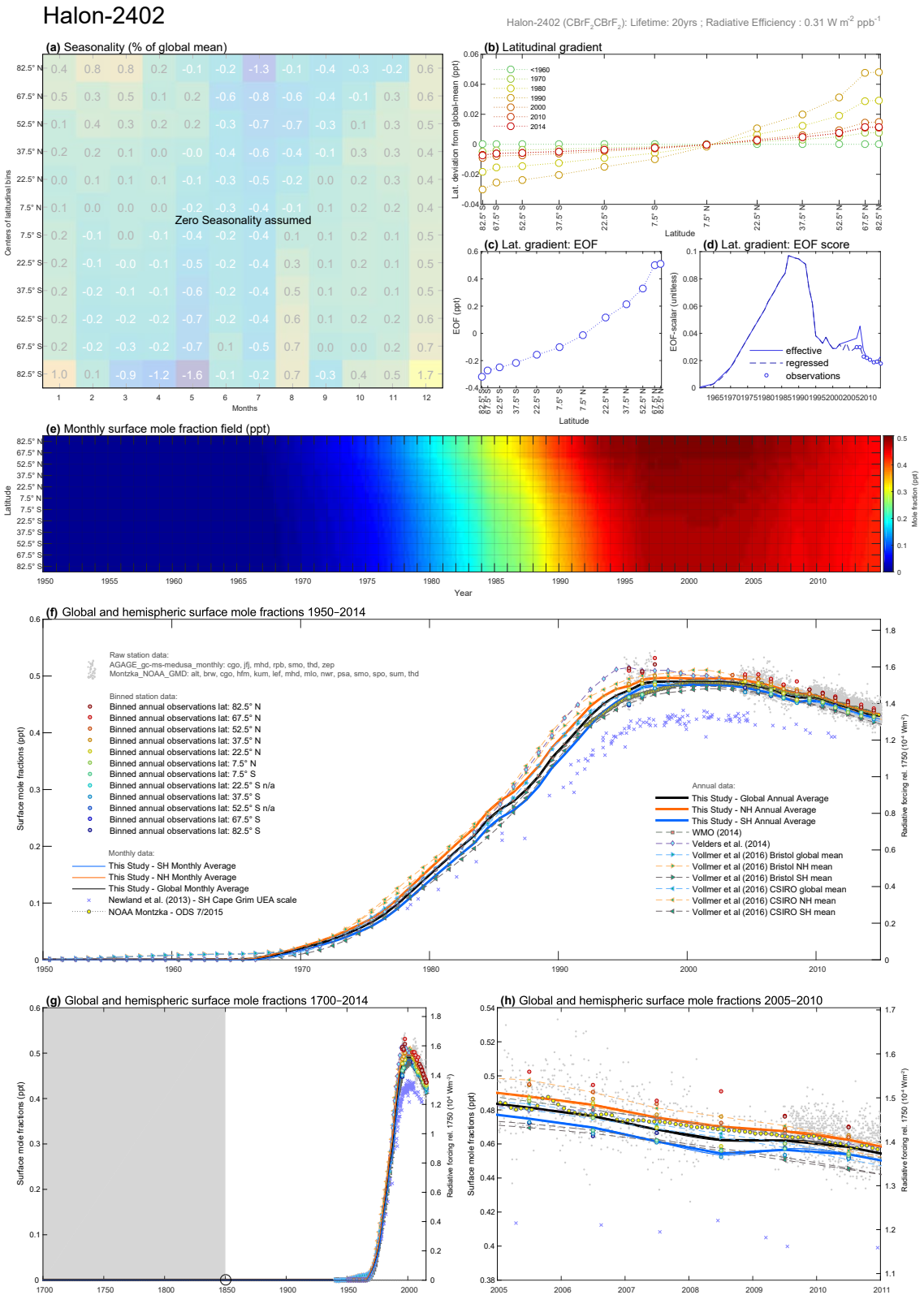


Figure S14. Halon-2402 Factsheet

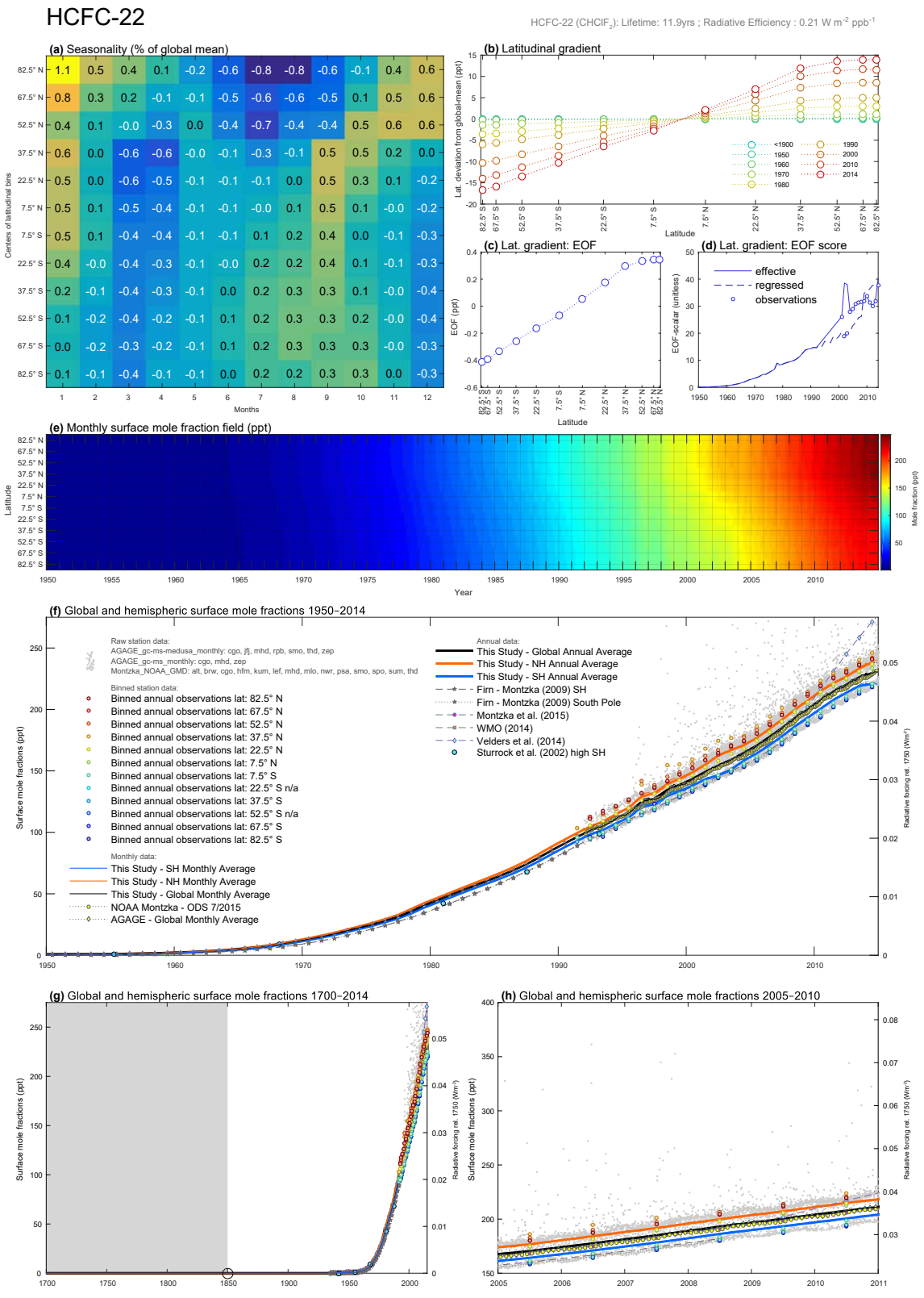


Figure S15. HCFC-22 Factsheet

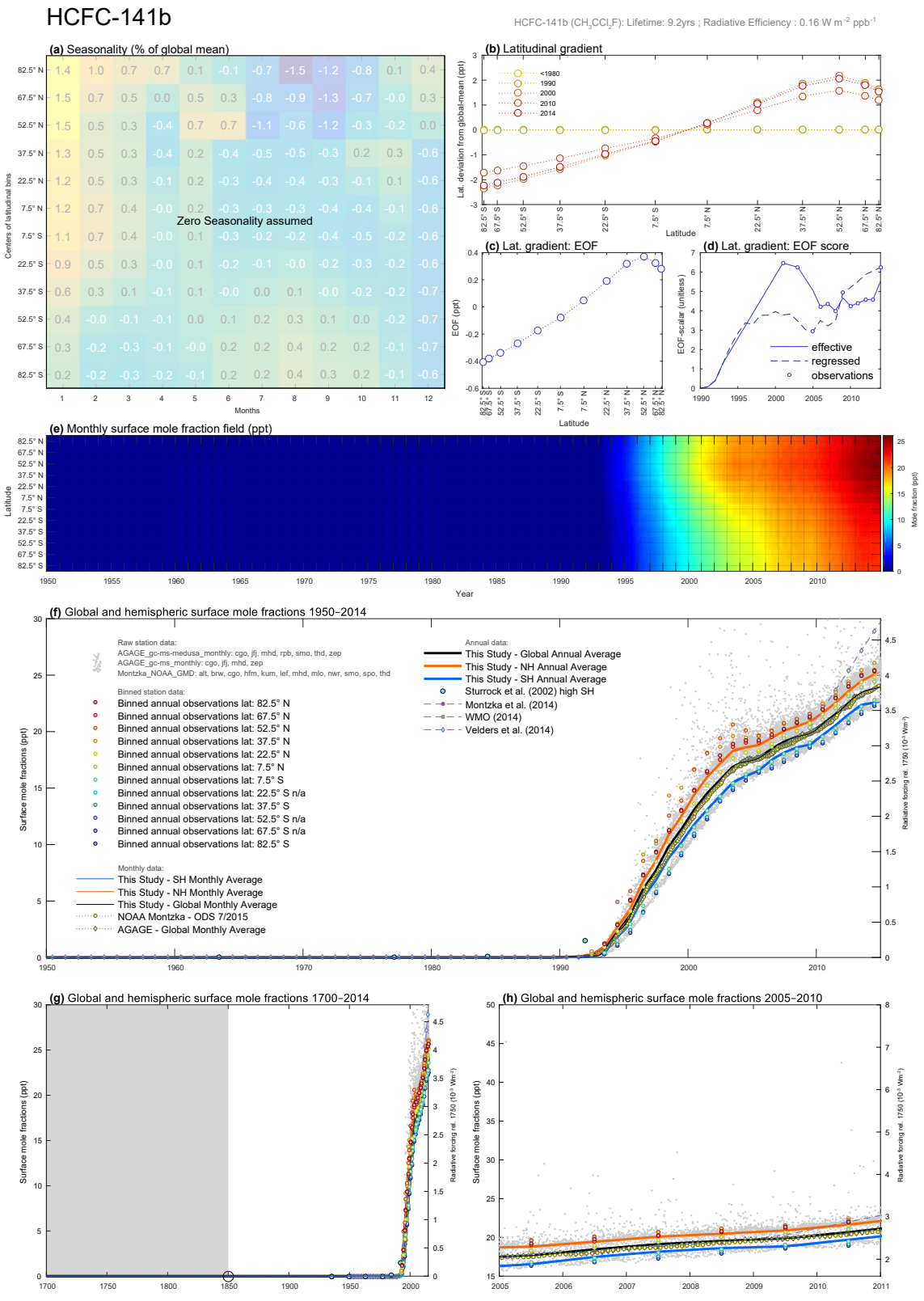


Figure S16. HCFC-141b Factsheet

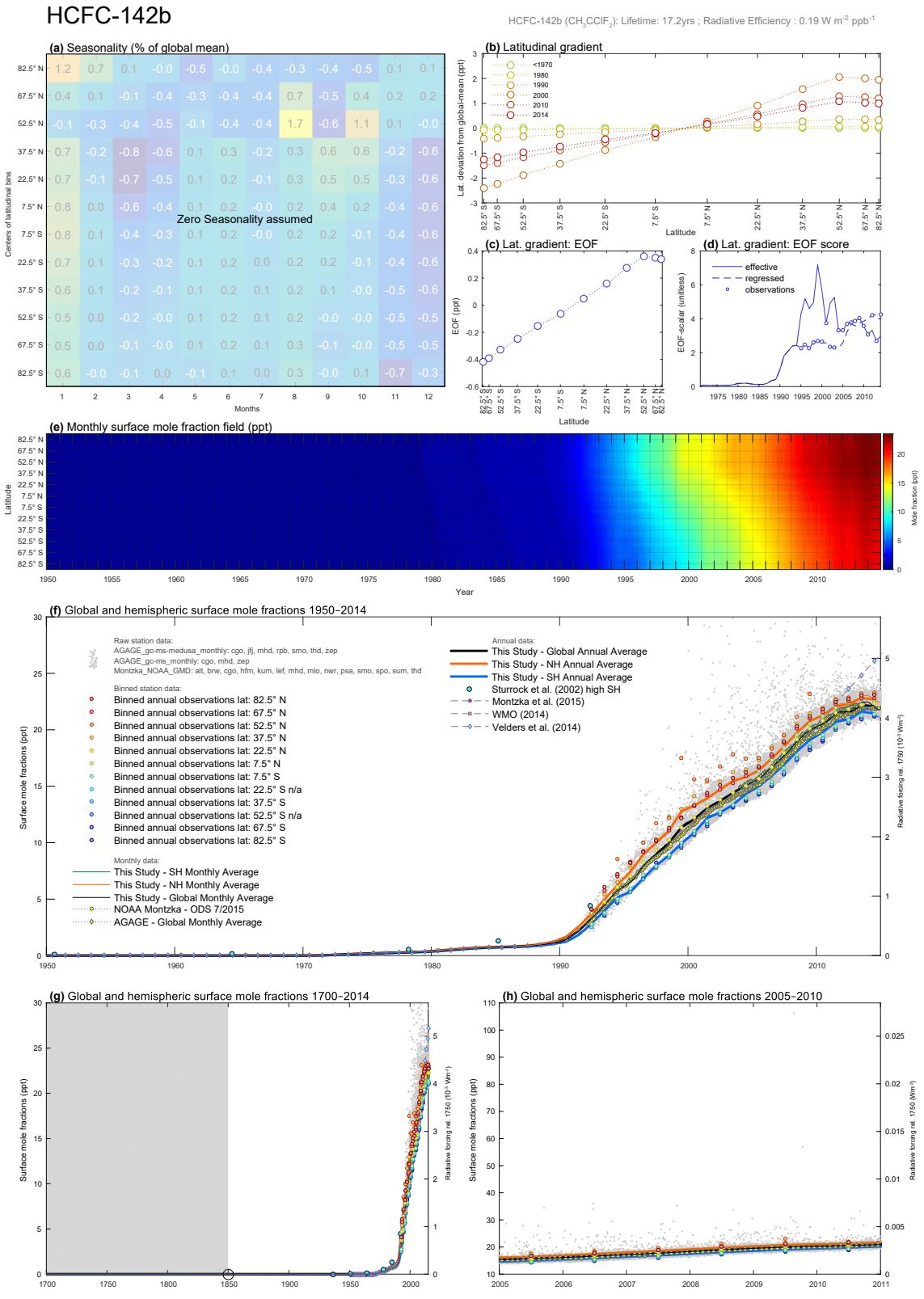


Figure S17. HCFC-142b Factsheet

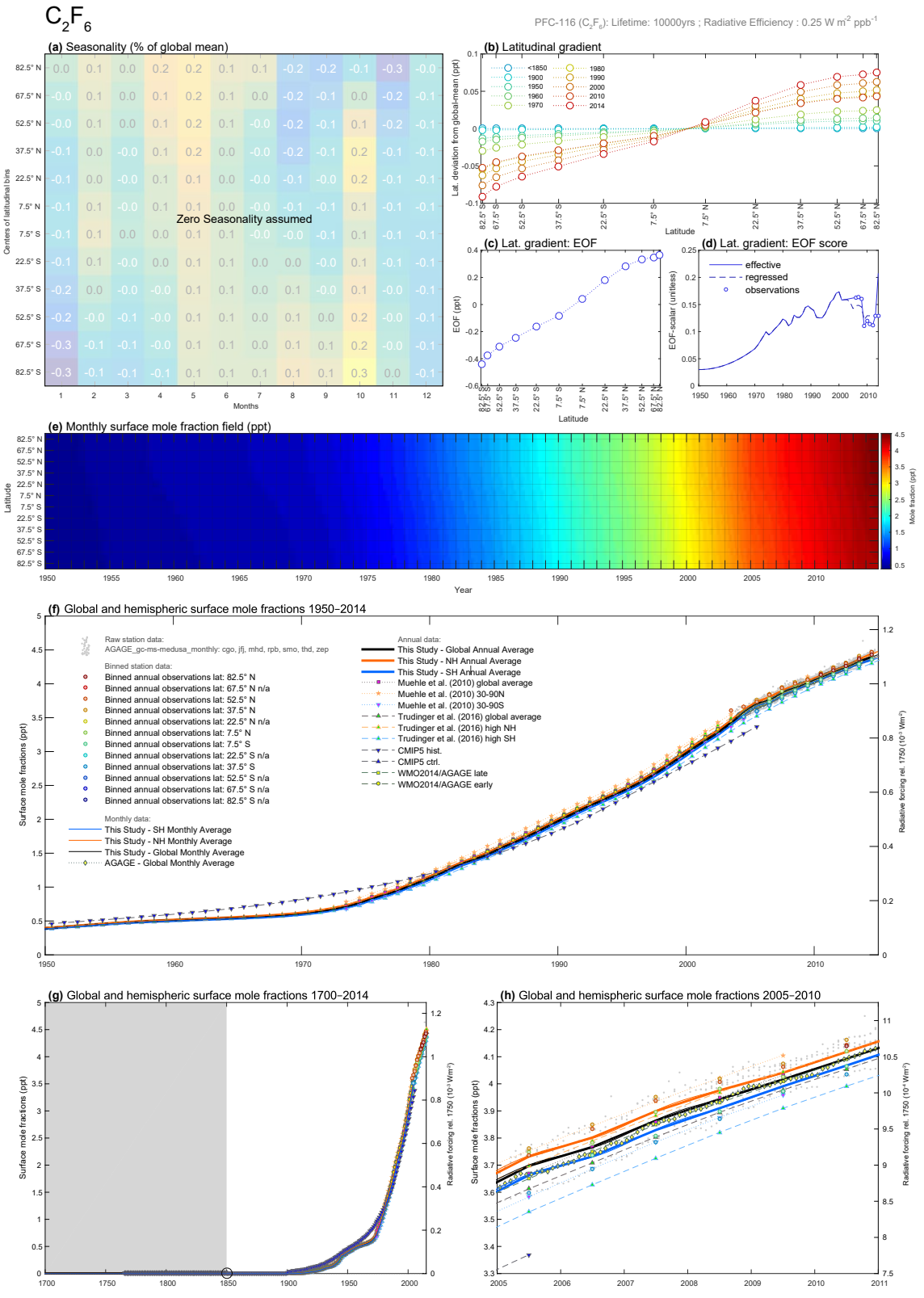


Figure S18. C_2F_6 Factsheet

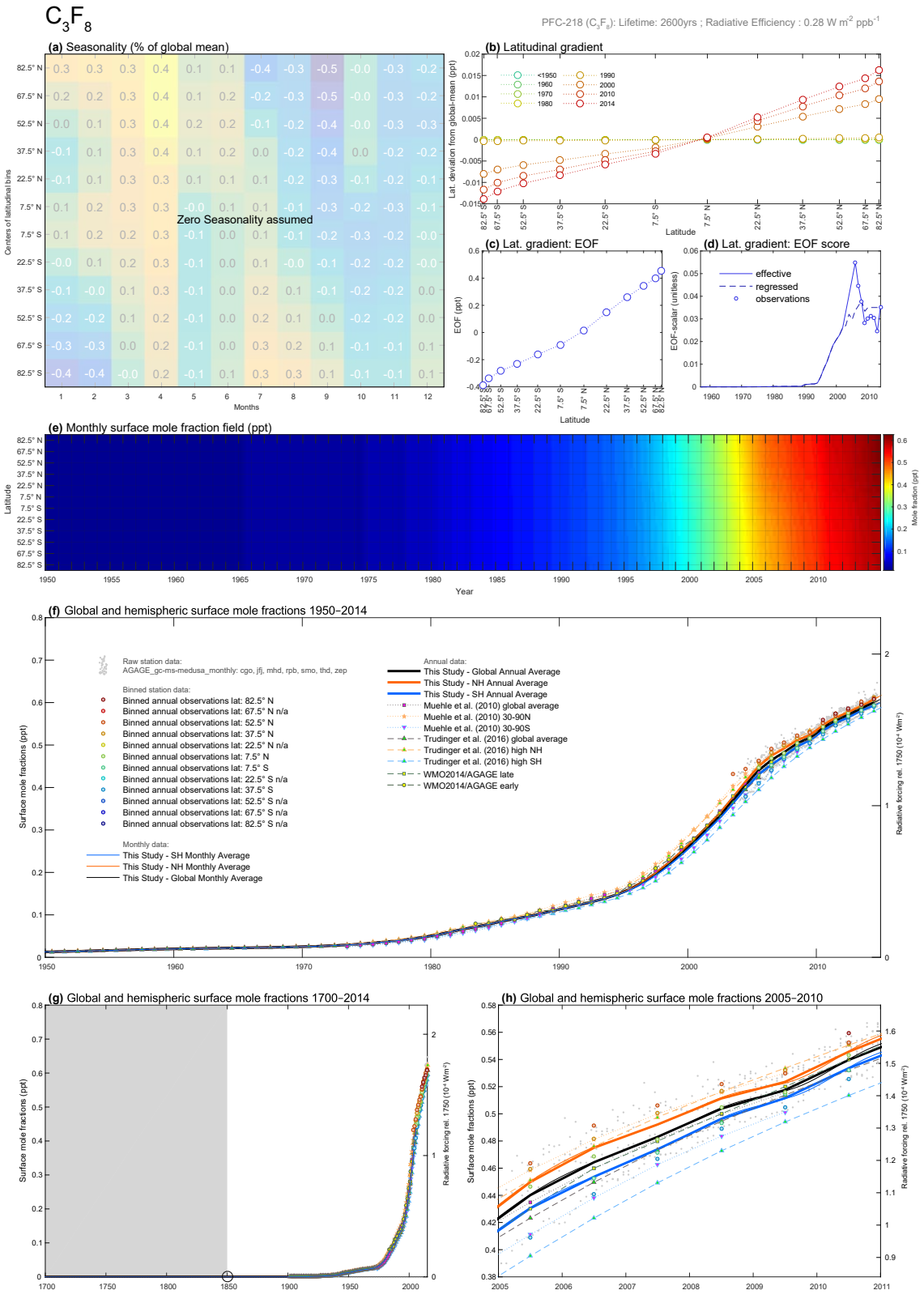


Figure S19. C_3F_8 Factsheet

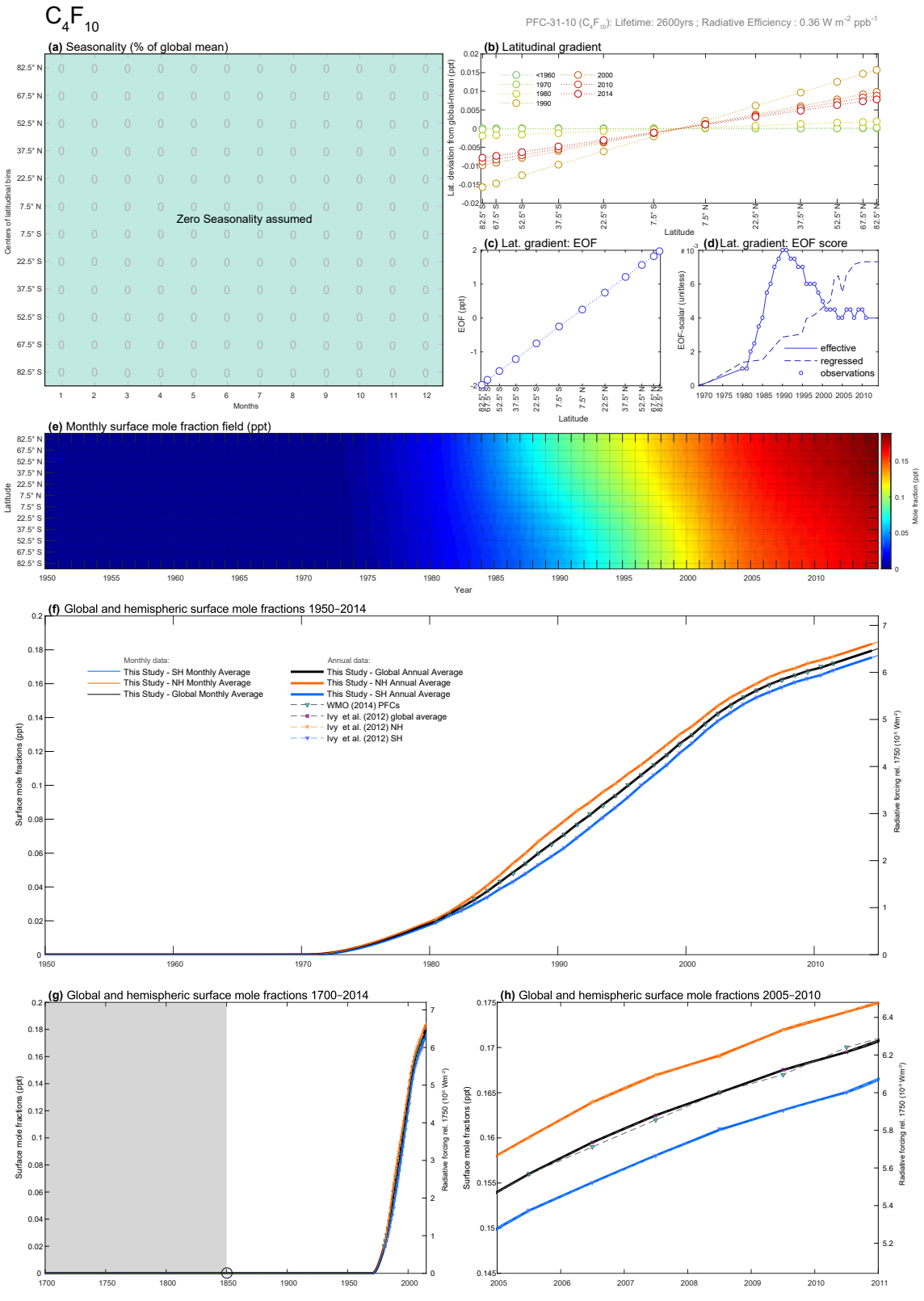
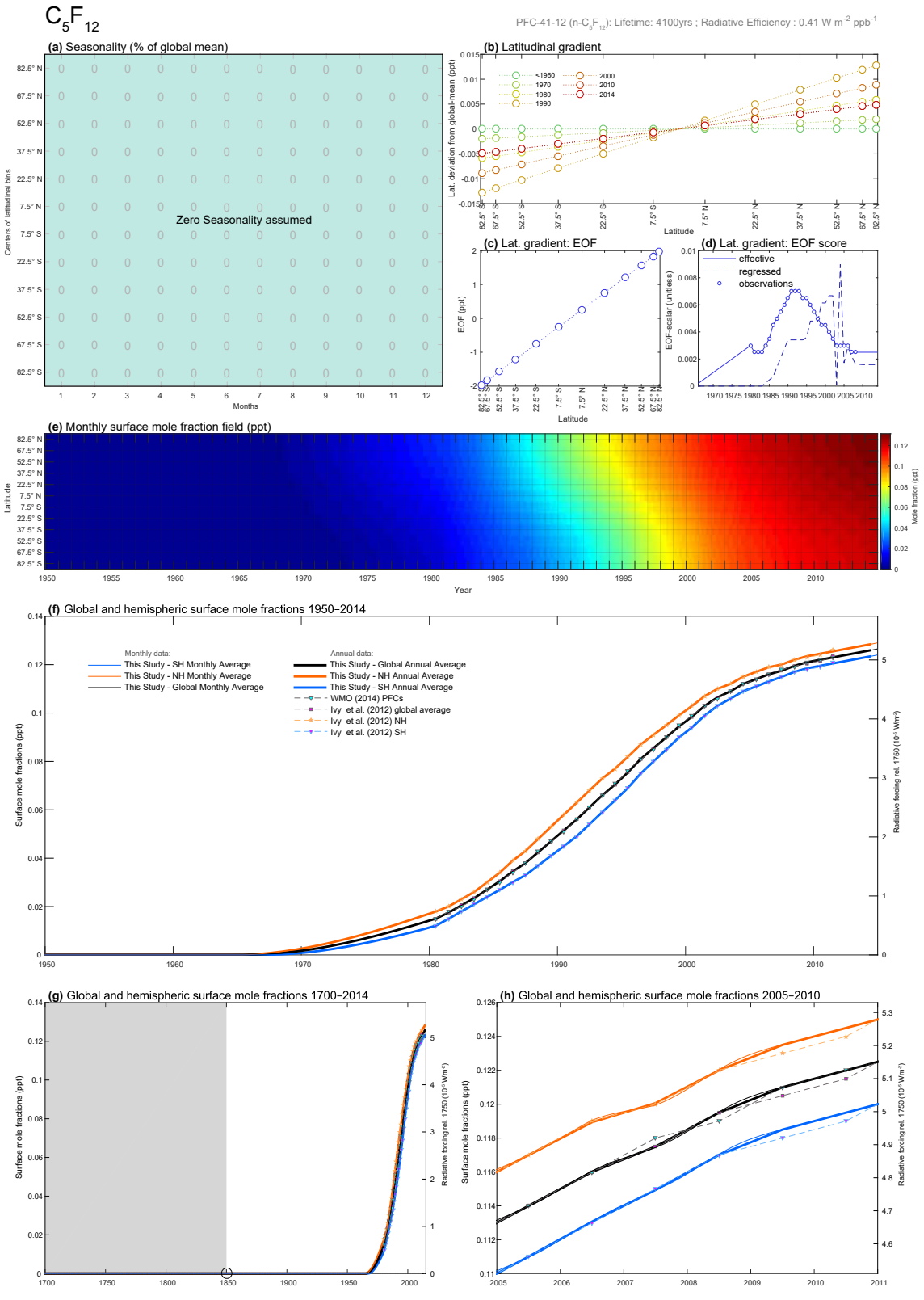


Figure S20. C_4F_{10} Factsheet



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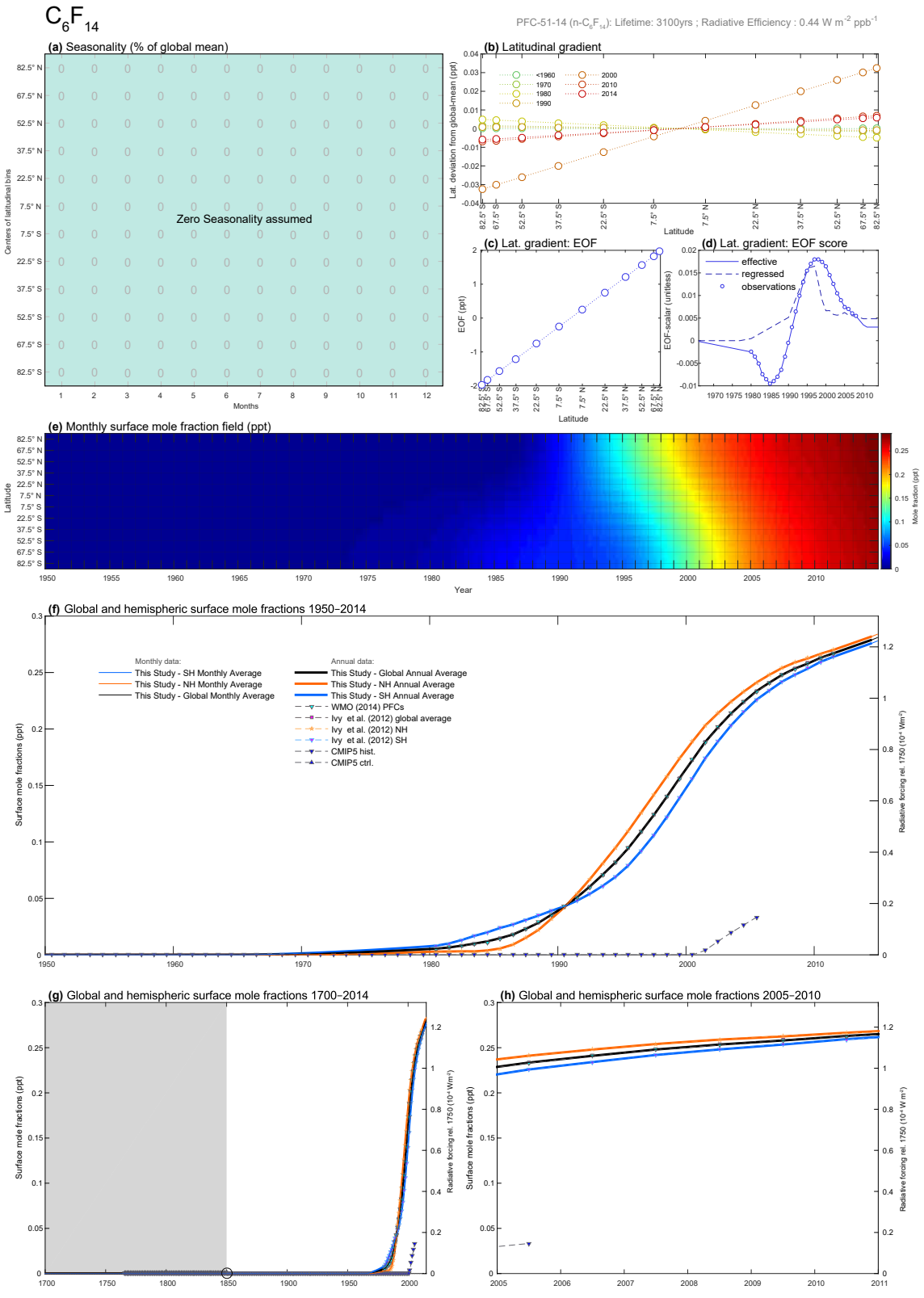

Figure S22. C_6F_{14} Factsheet

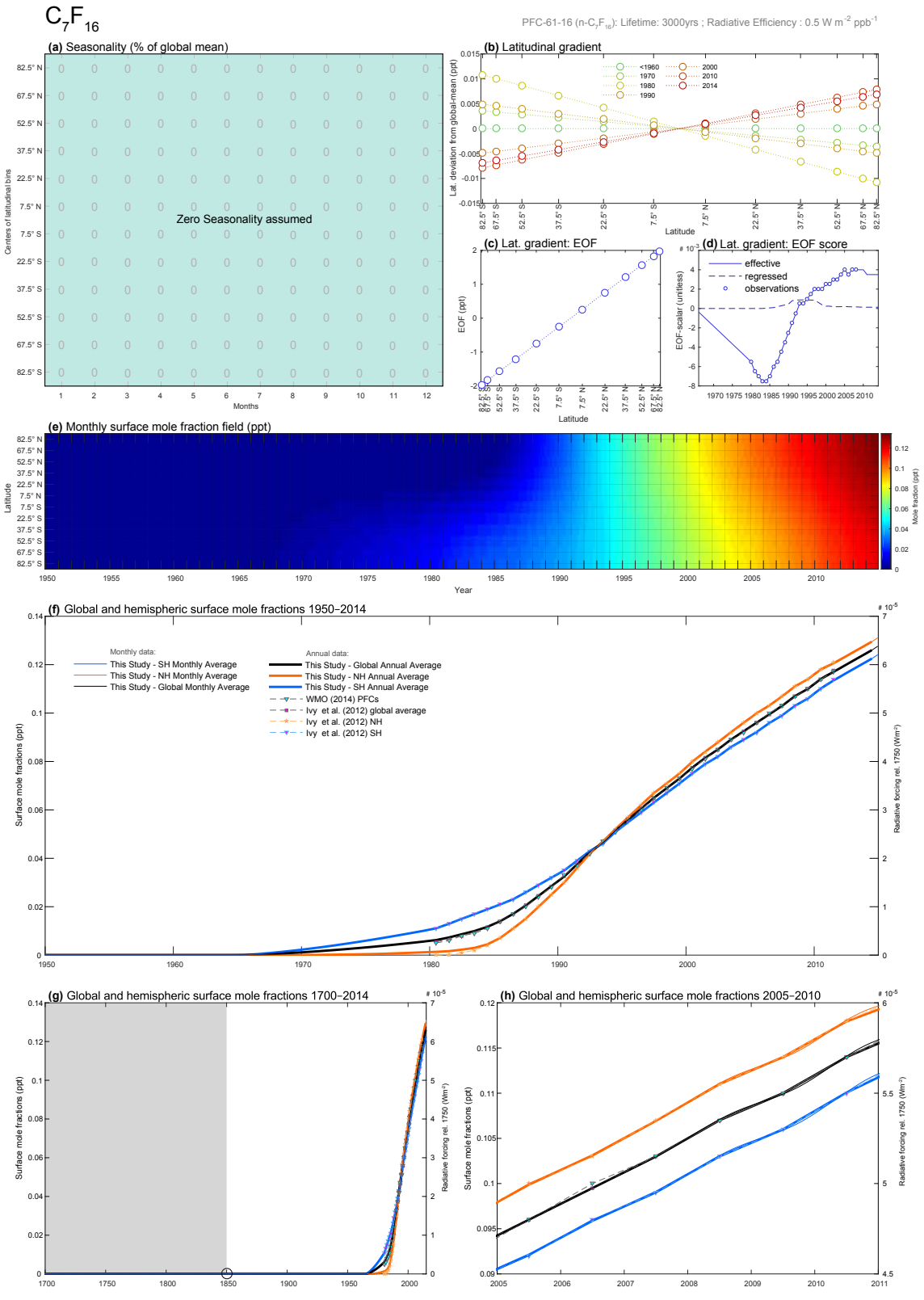

Figure S23. C_7F_{16} Factsheet

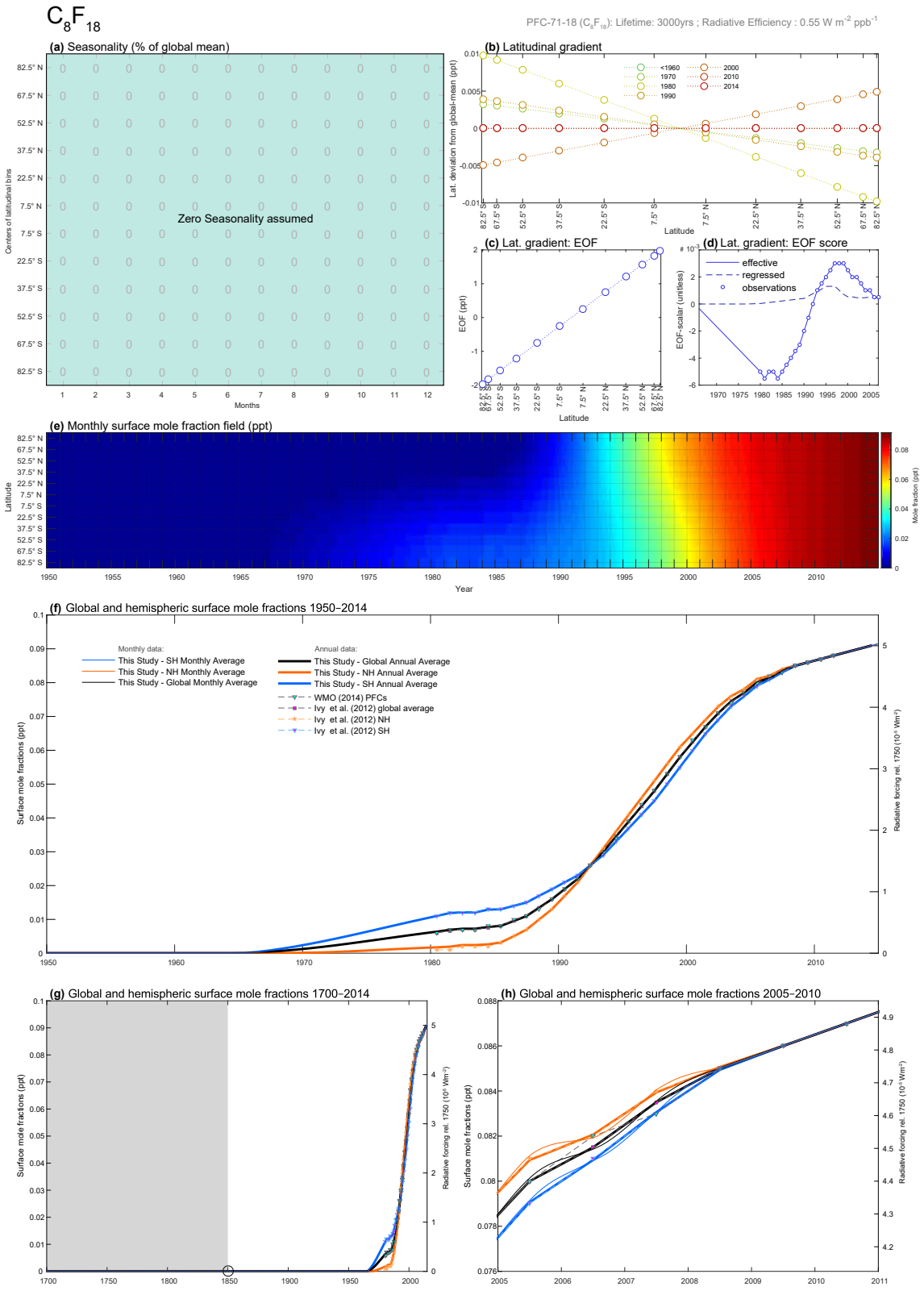

Figure S24. C_8F_{18} Factsheet

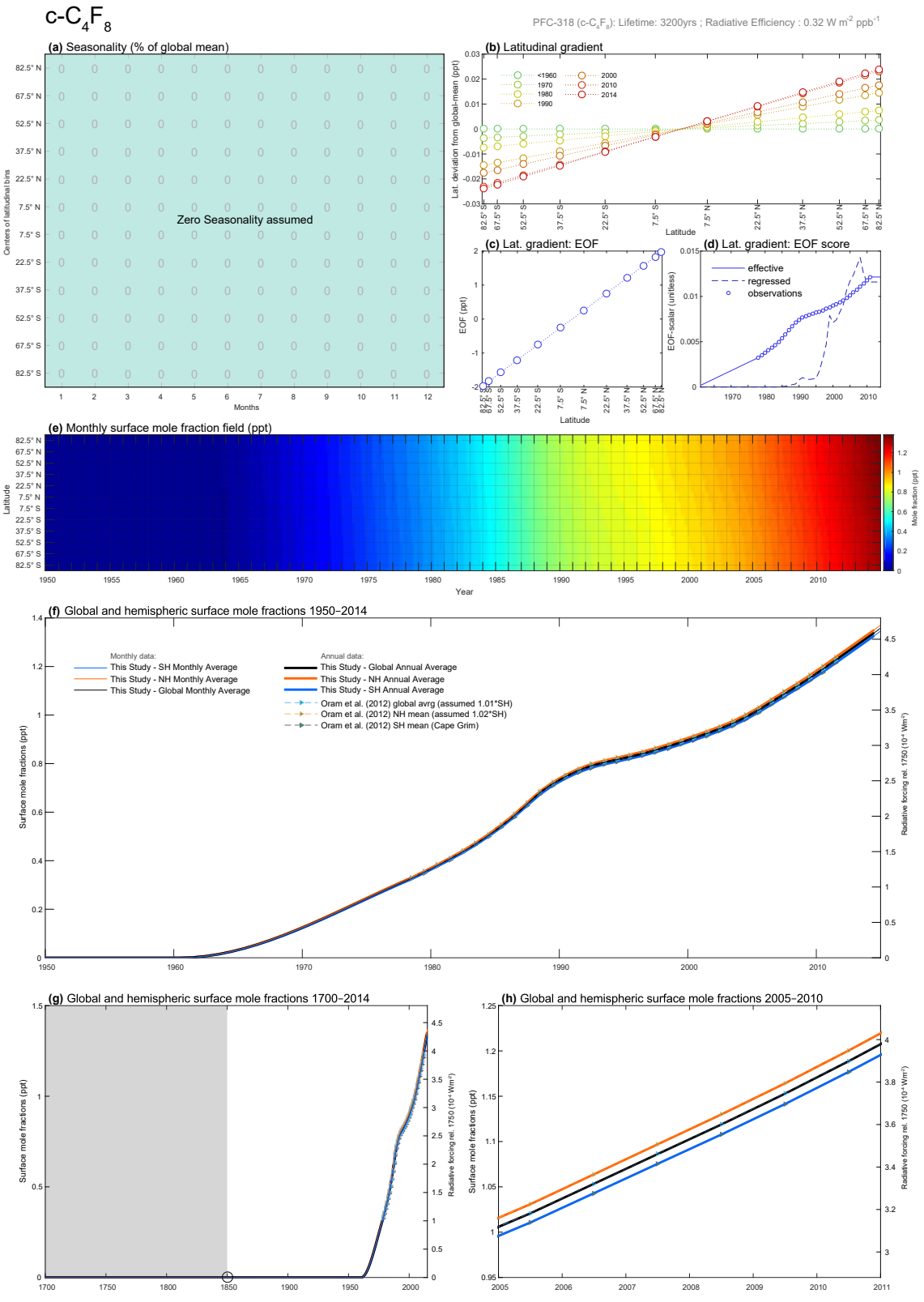

Figure S25. c-C_4F_8 Factsheet

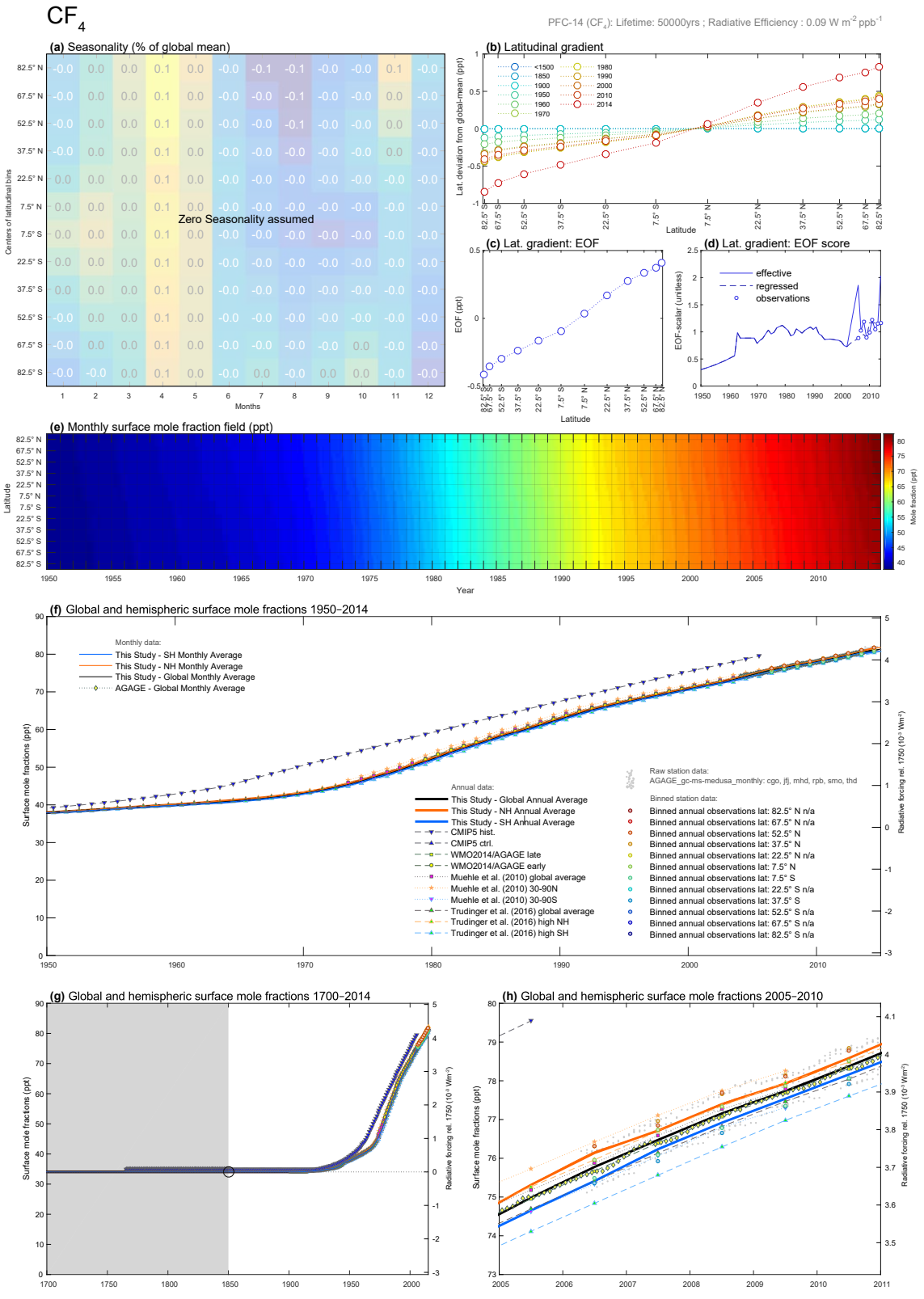

Figure S26. CF_4 Factsheet

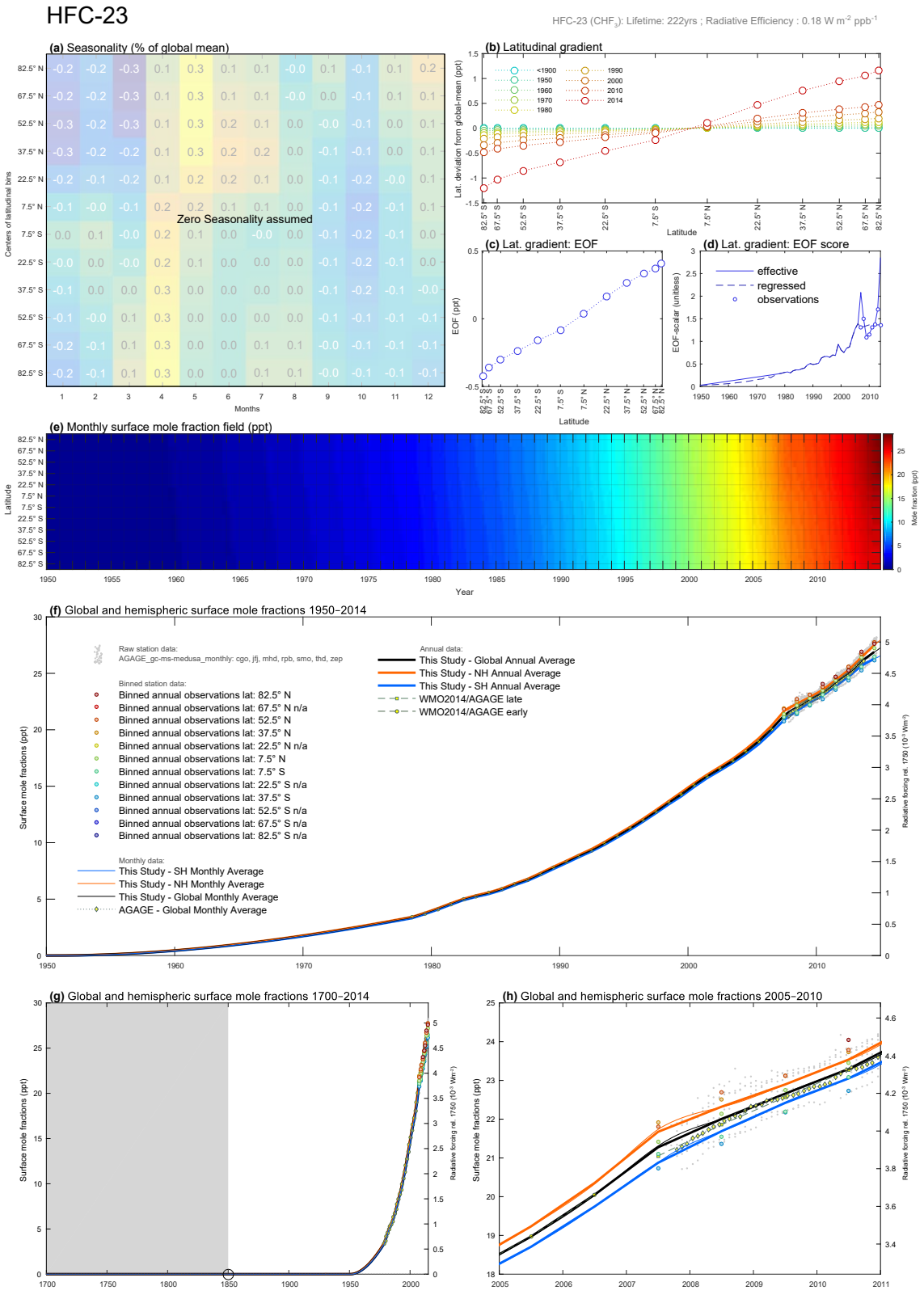

Figure S27. HFC-23 Factsheet

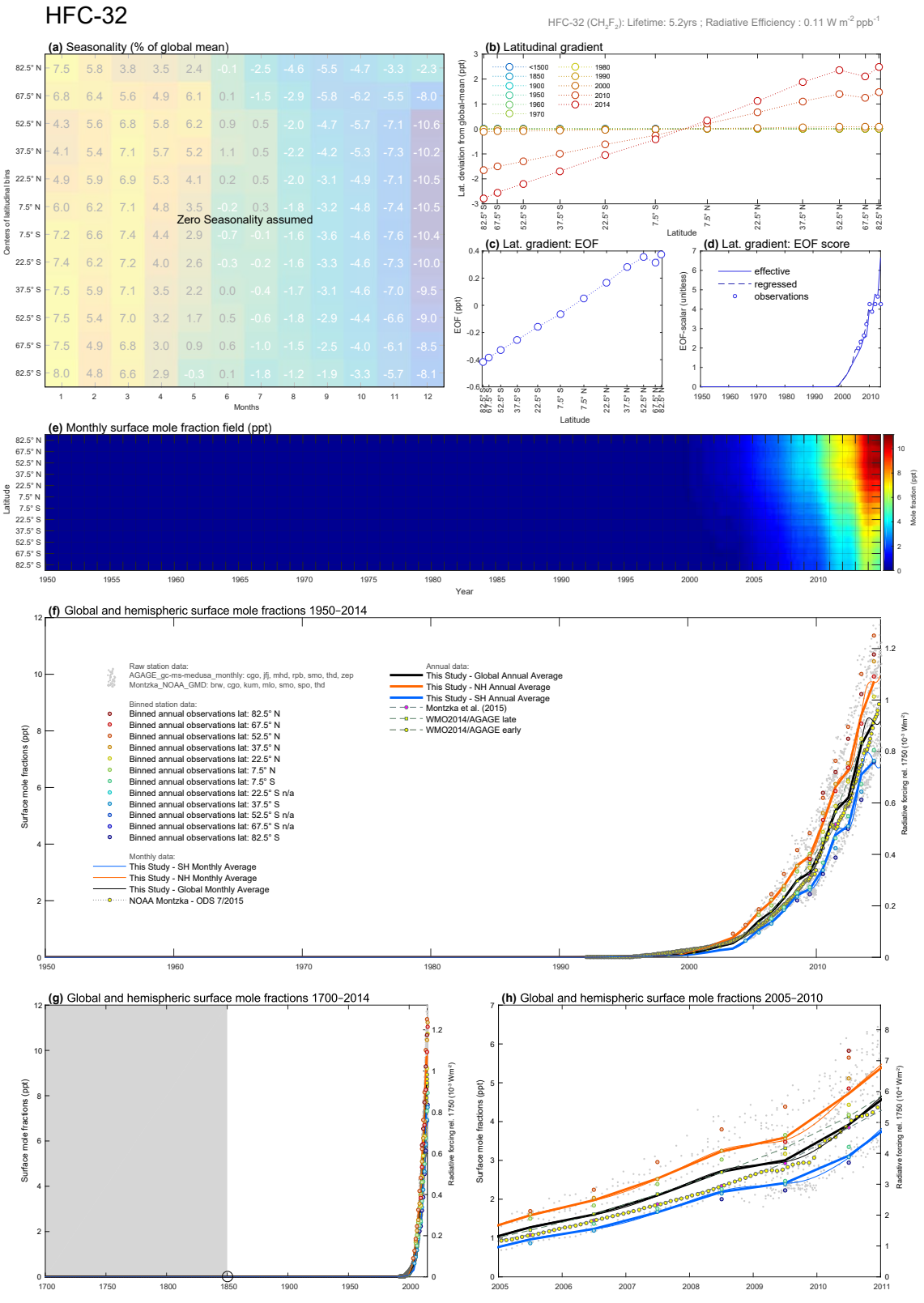

Figure S28. HFC-32 Factsheet

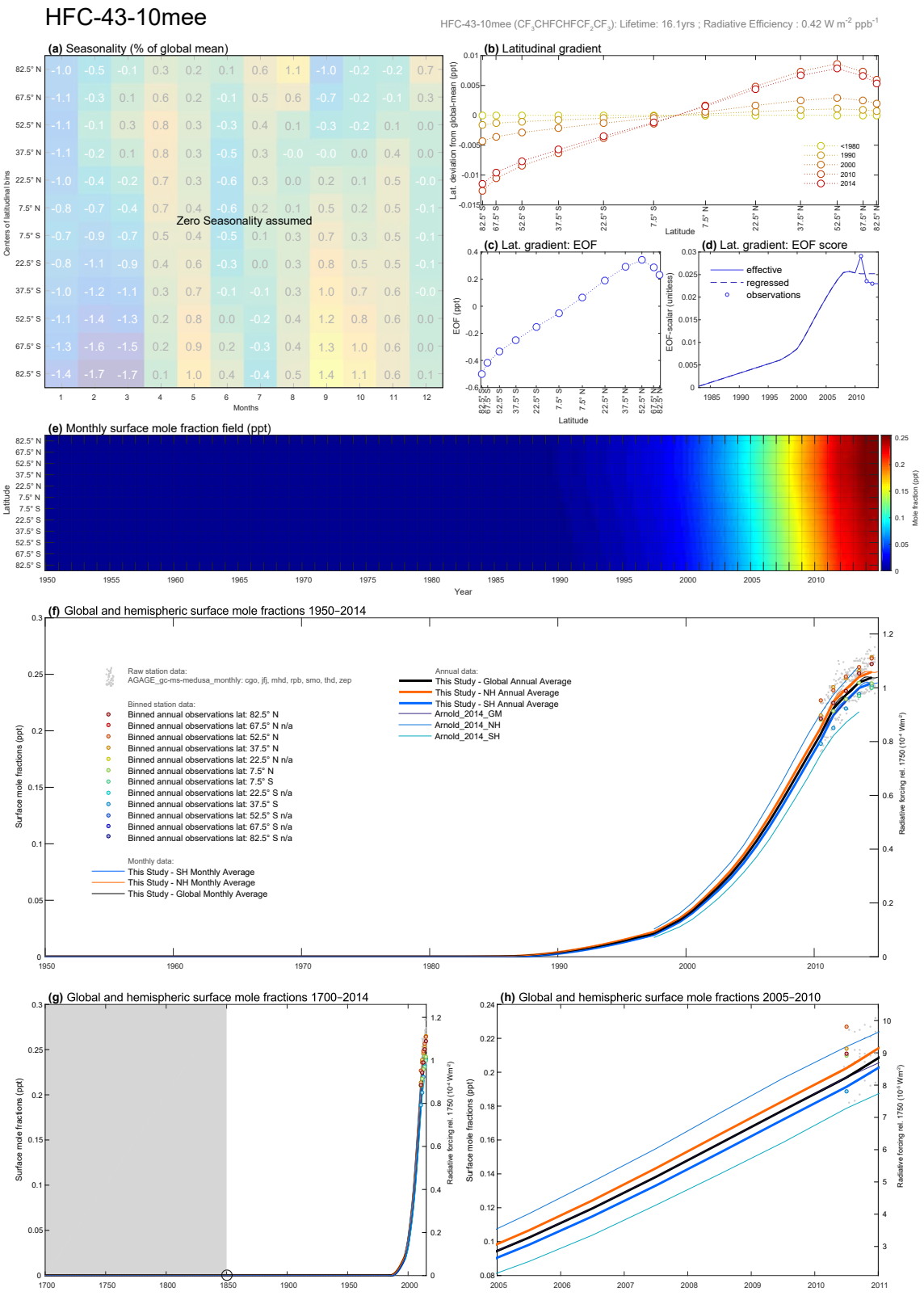

Figure S29. HFC-43-10-mee Factsheet

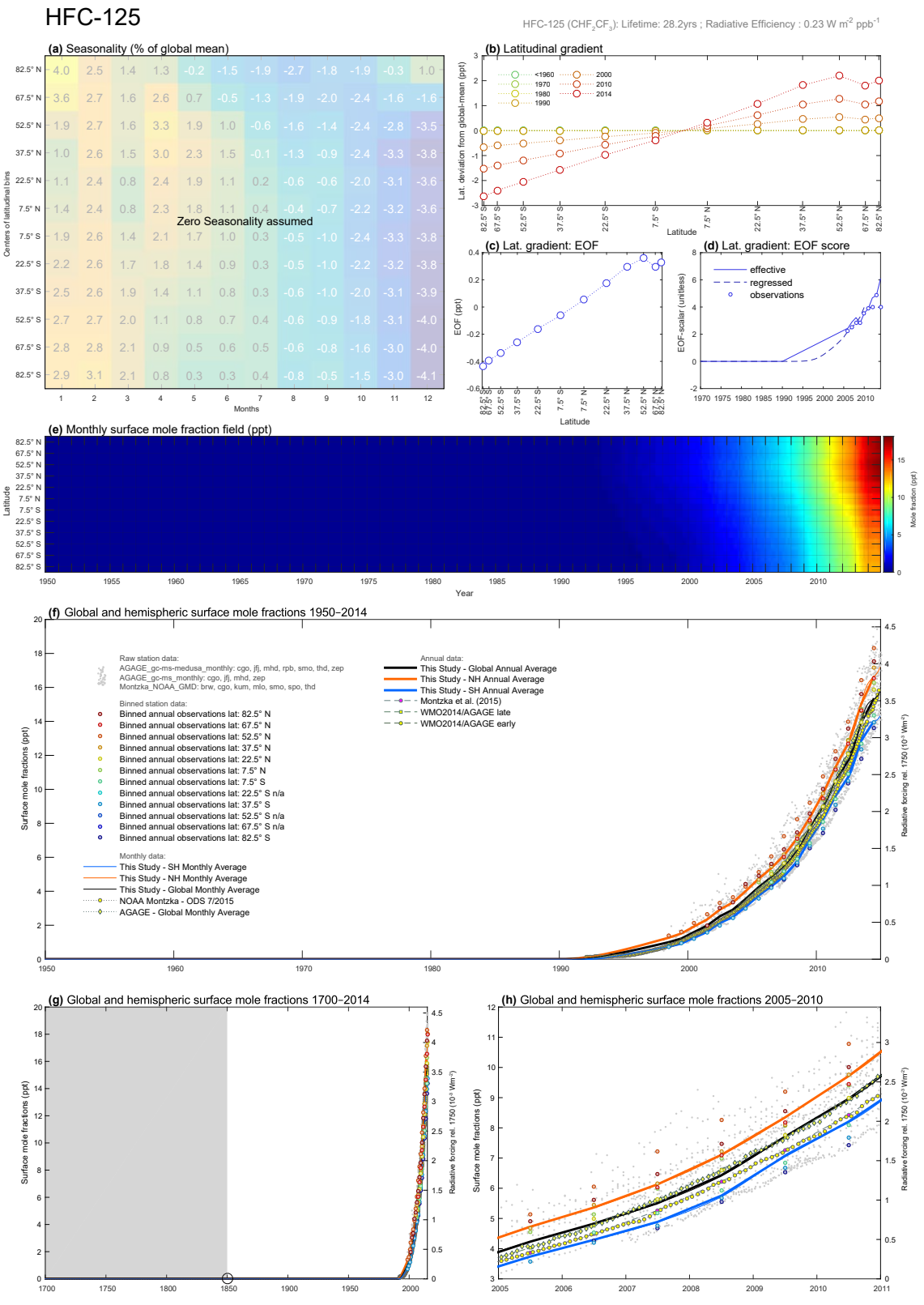

Figure S30. HFC-125 Factsheet

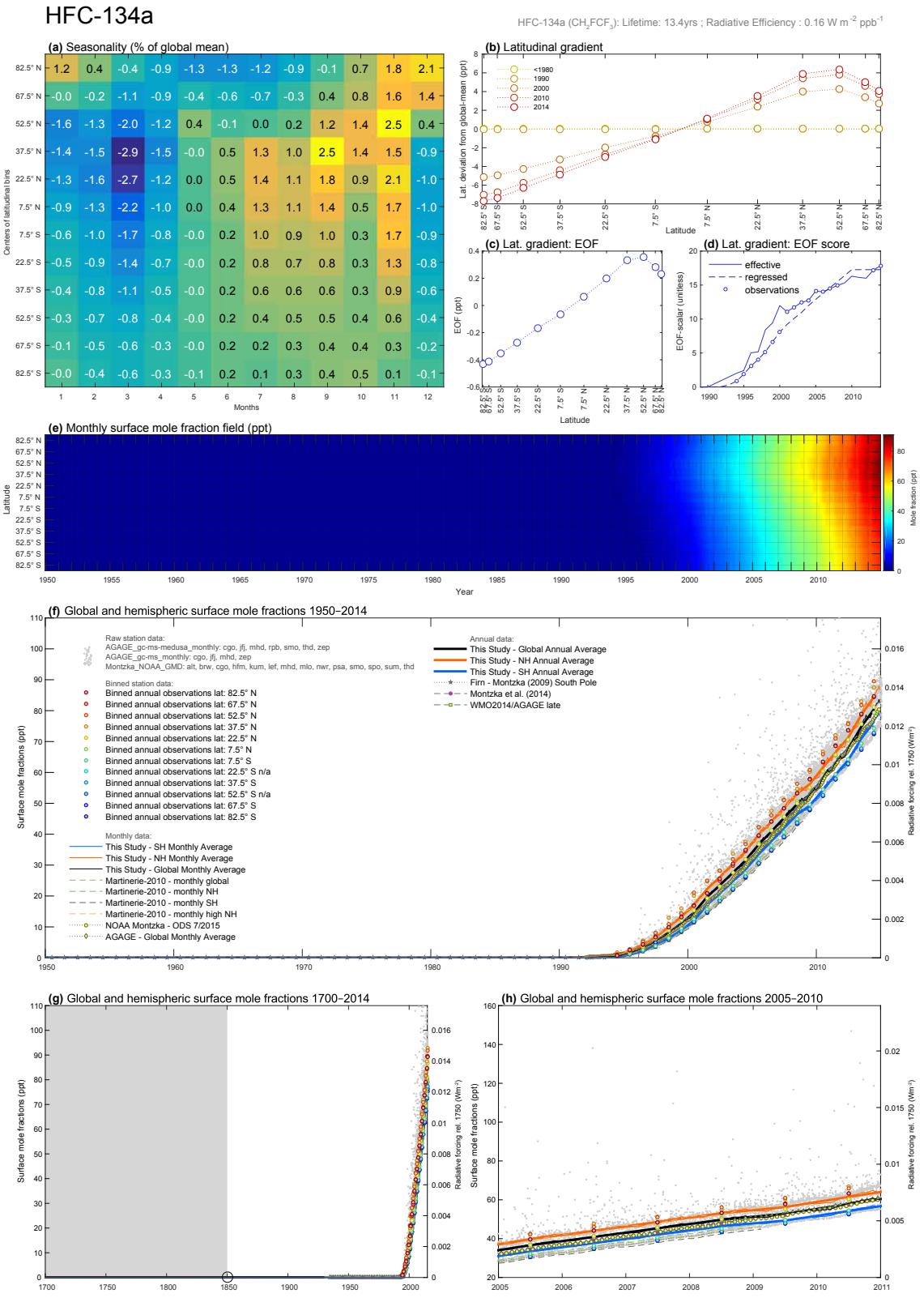

Figure S31. HFC-134a Factsheet

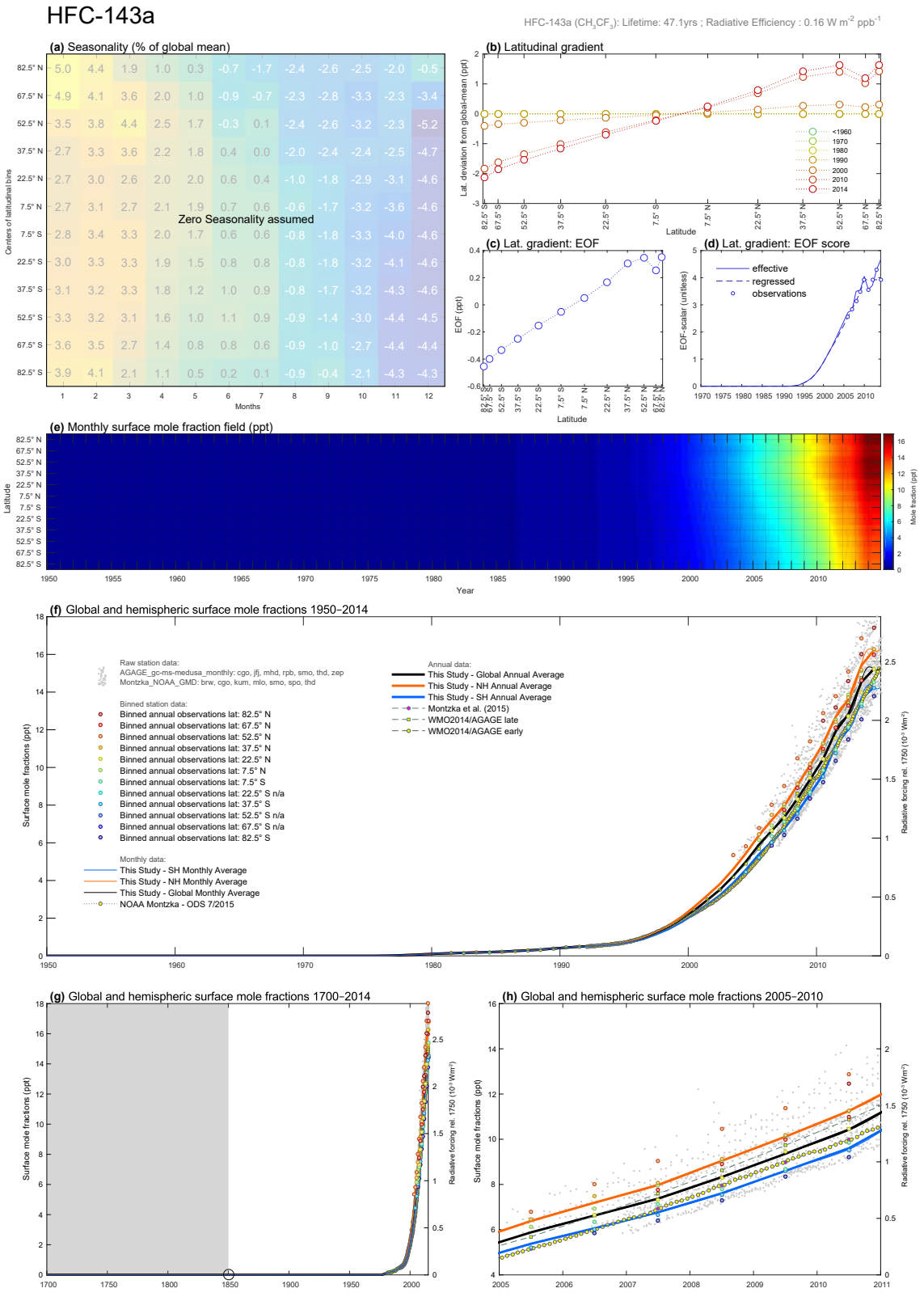

Figure S32. HFC-143a Factsheet

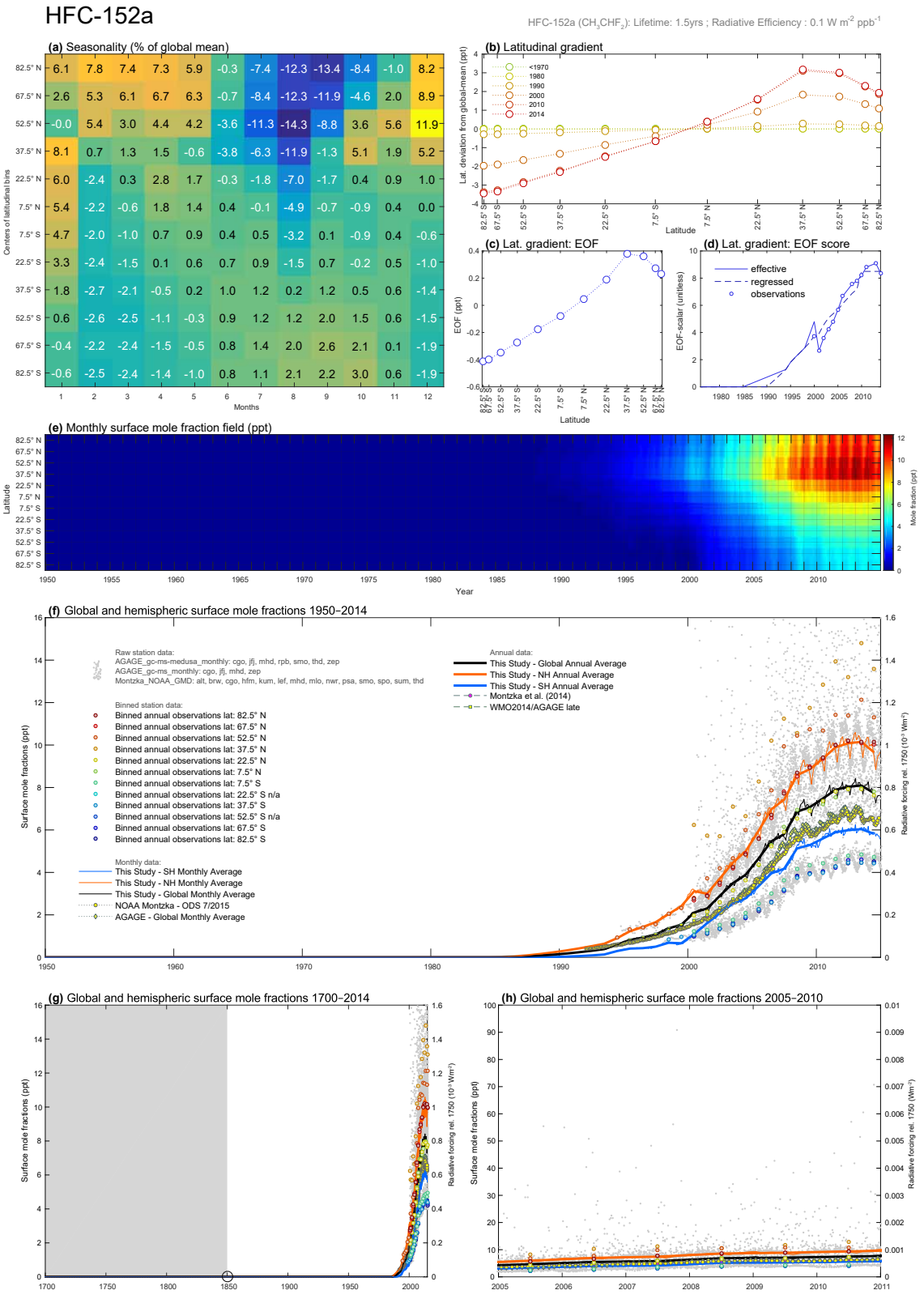

Figure S33. HFC-152a Factsheet

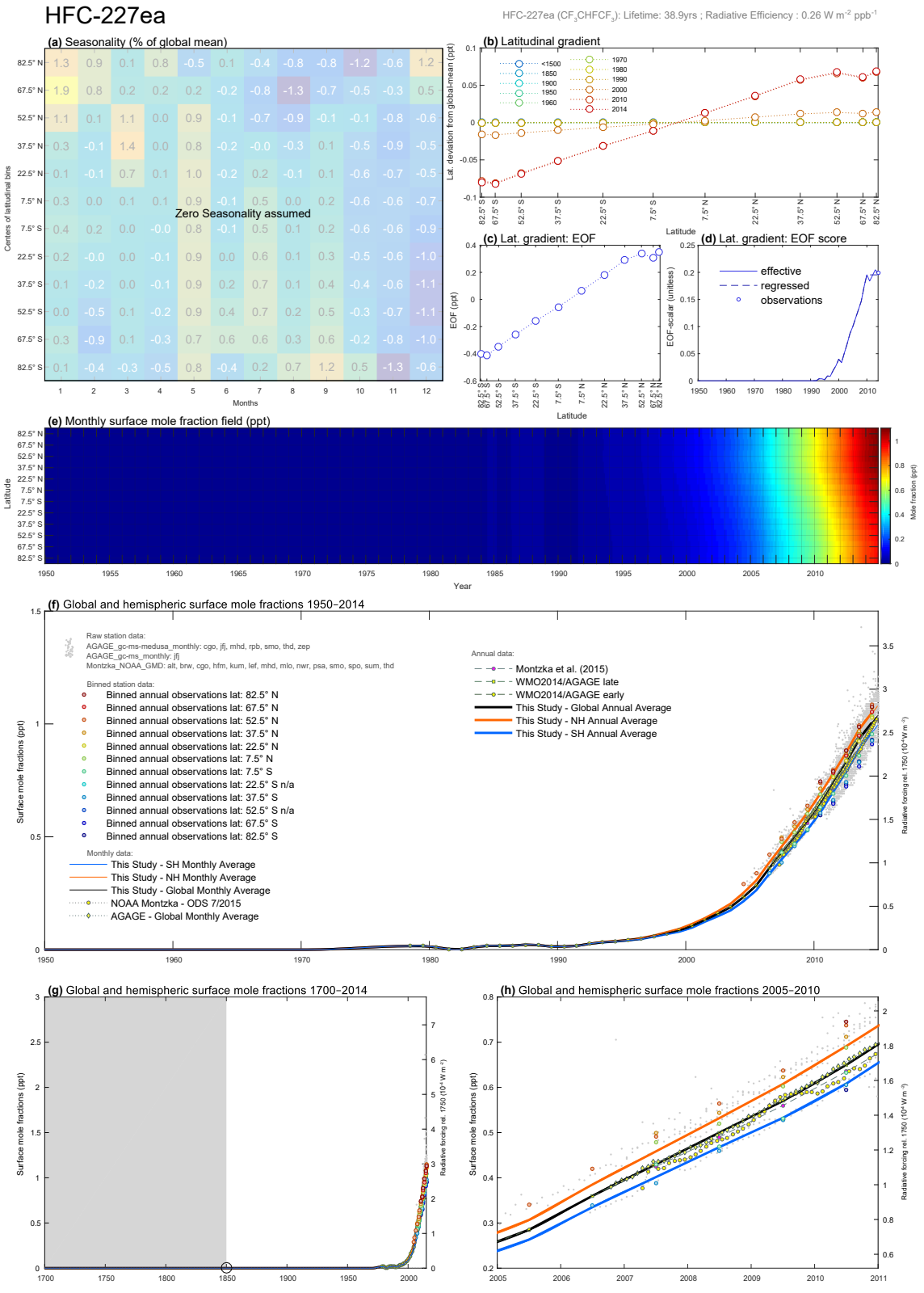

Figure S34. HFC-227ea Factsheet

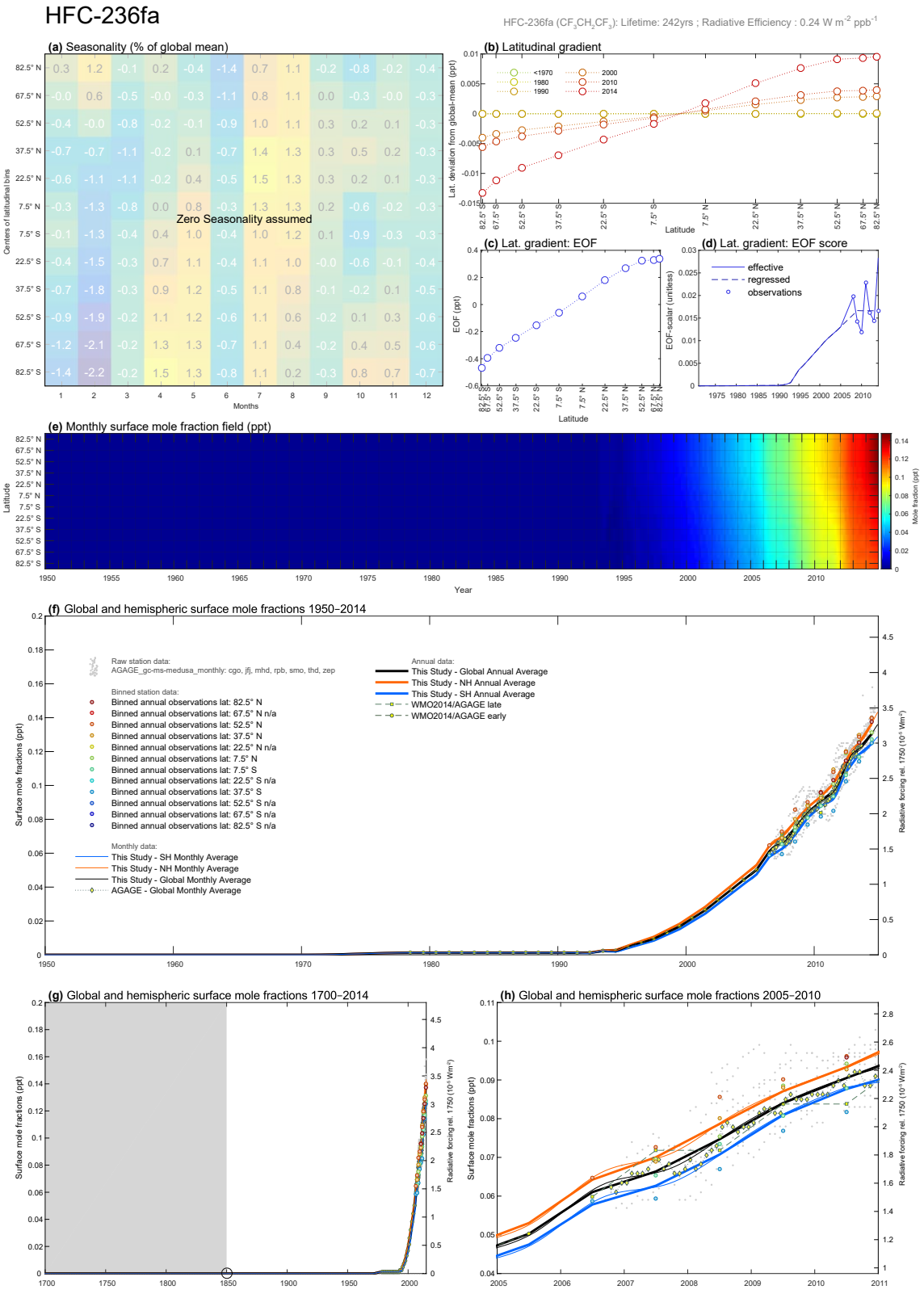

Figure S35. HFC-236fa Factsheet

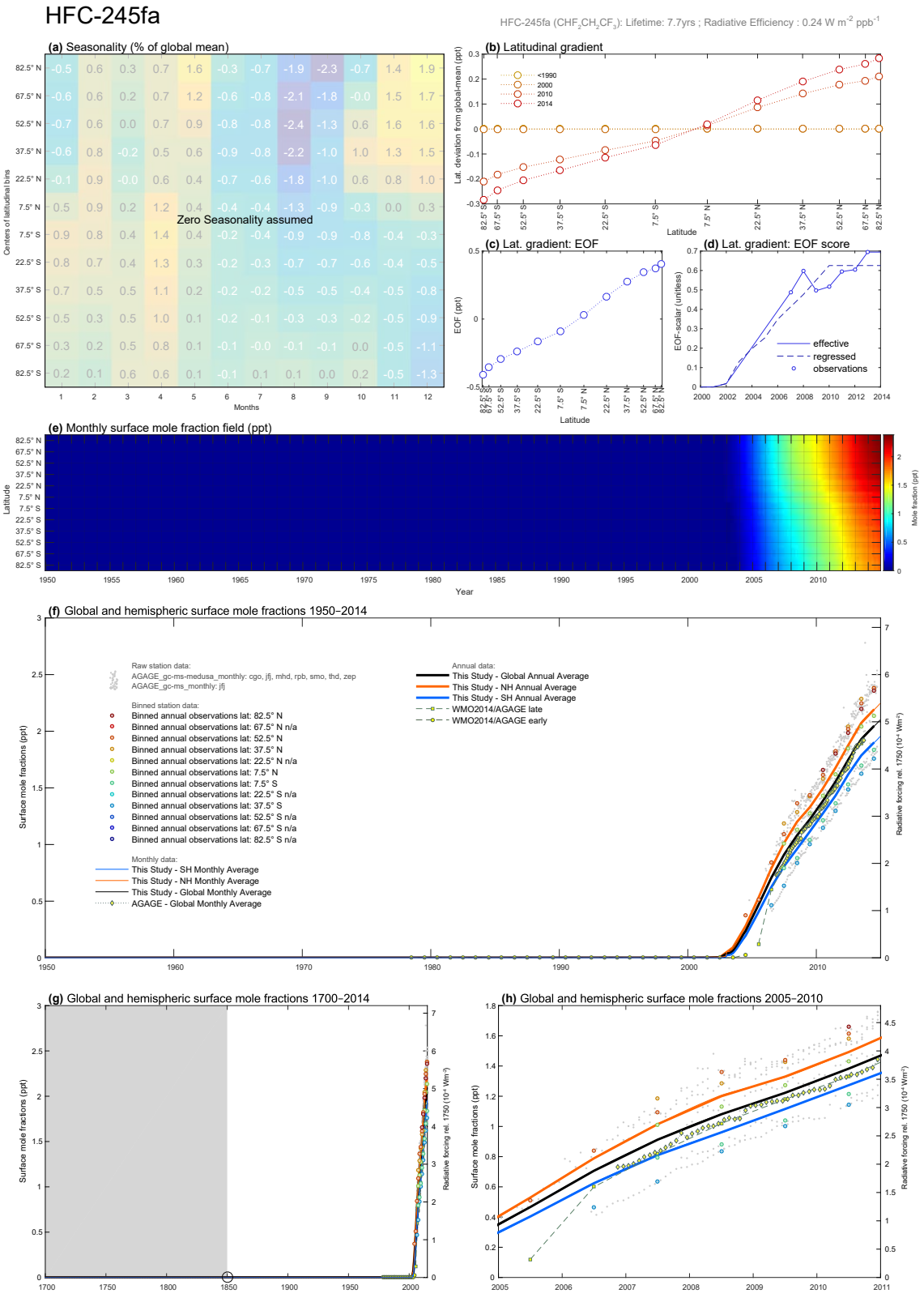

Figure S36. HFC-245fa Factsheet

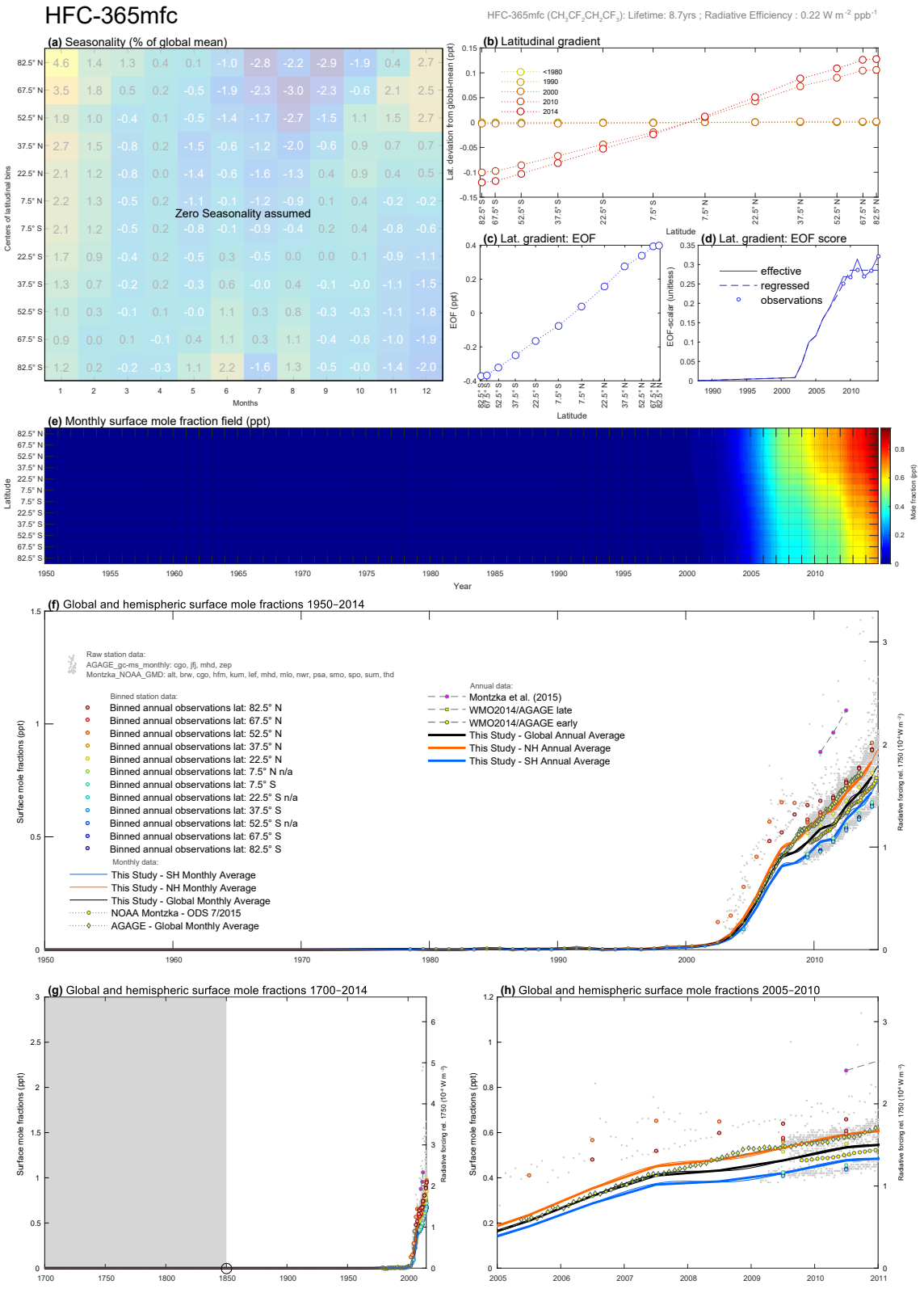

Figure S37. HFC-365mfc Factsheet

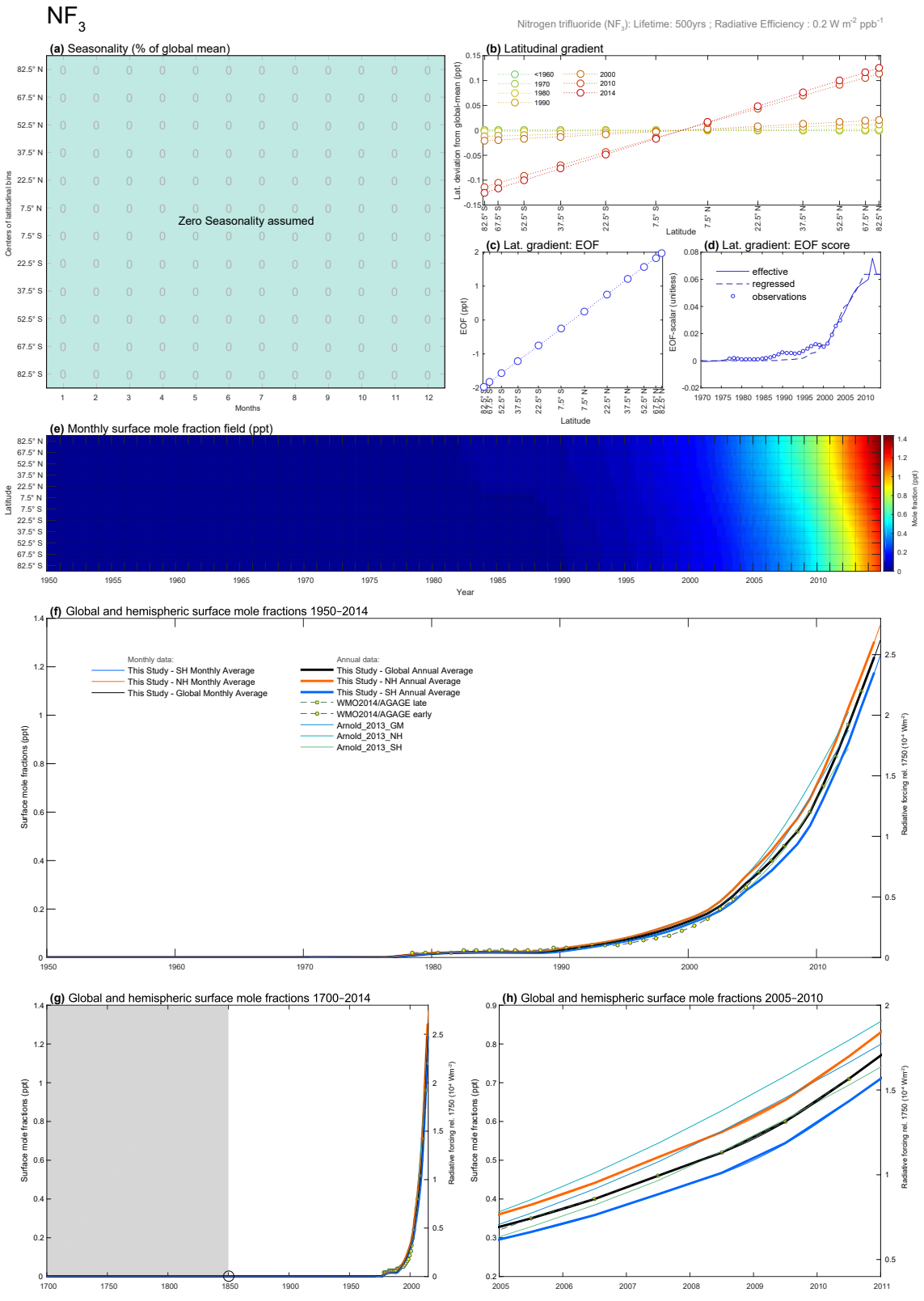

Figure S38. NF_3 Factsheet

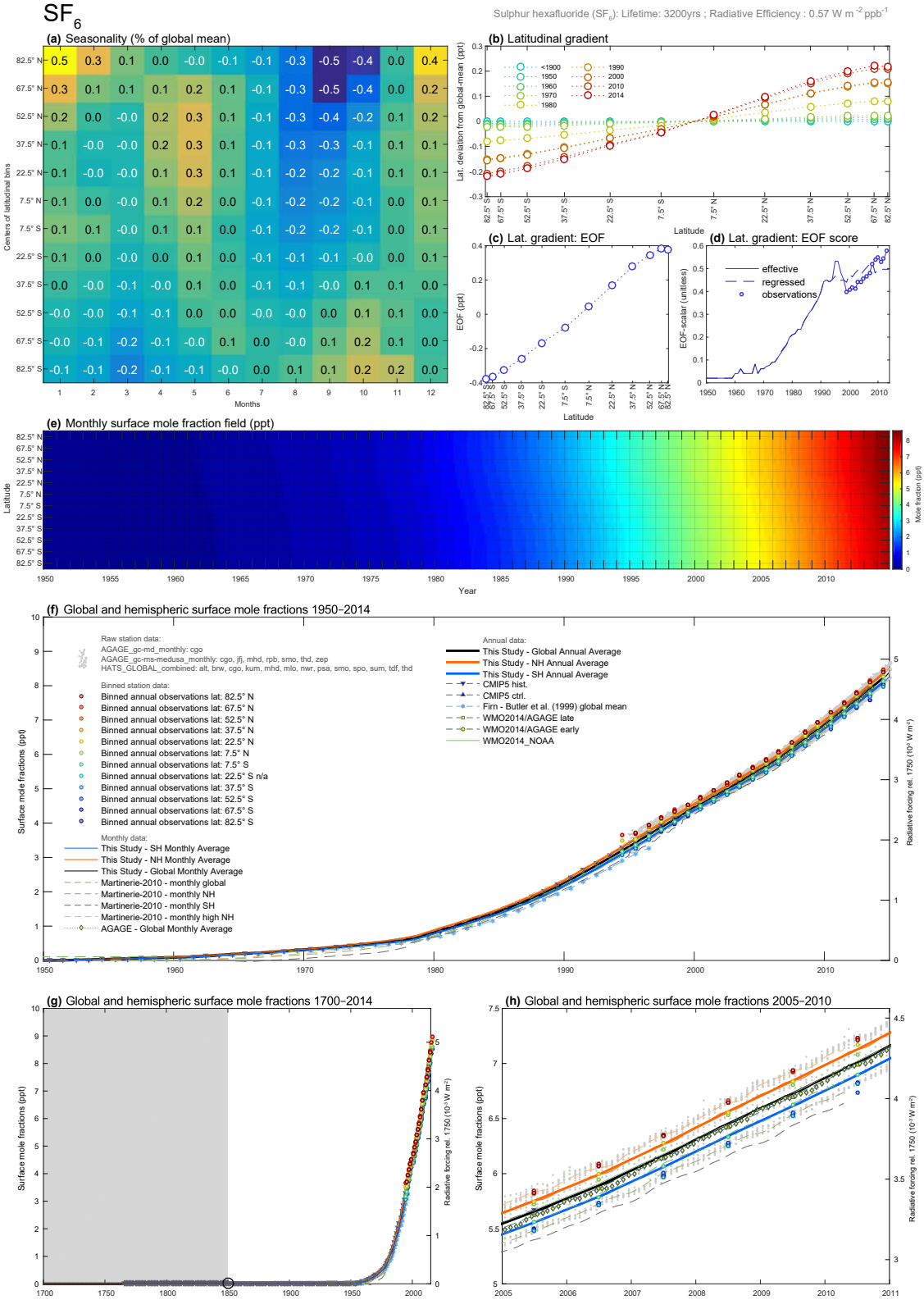

Figure S39. SF_6 Factsheet

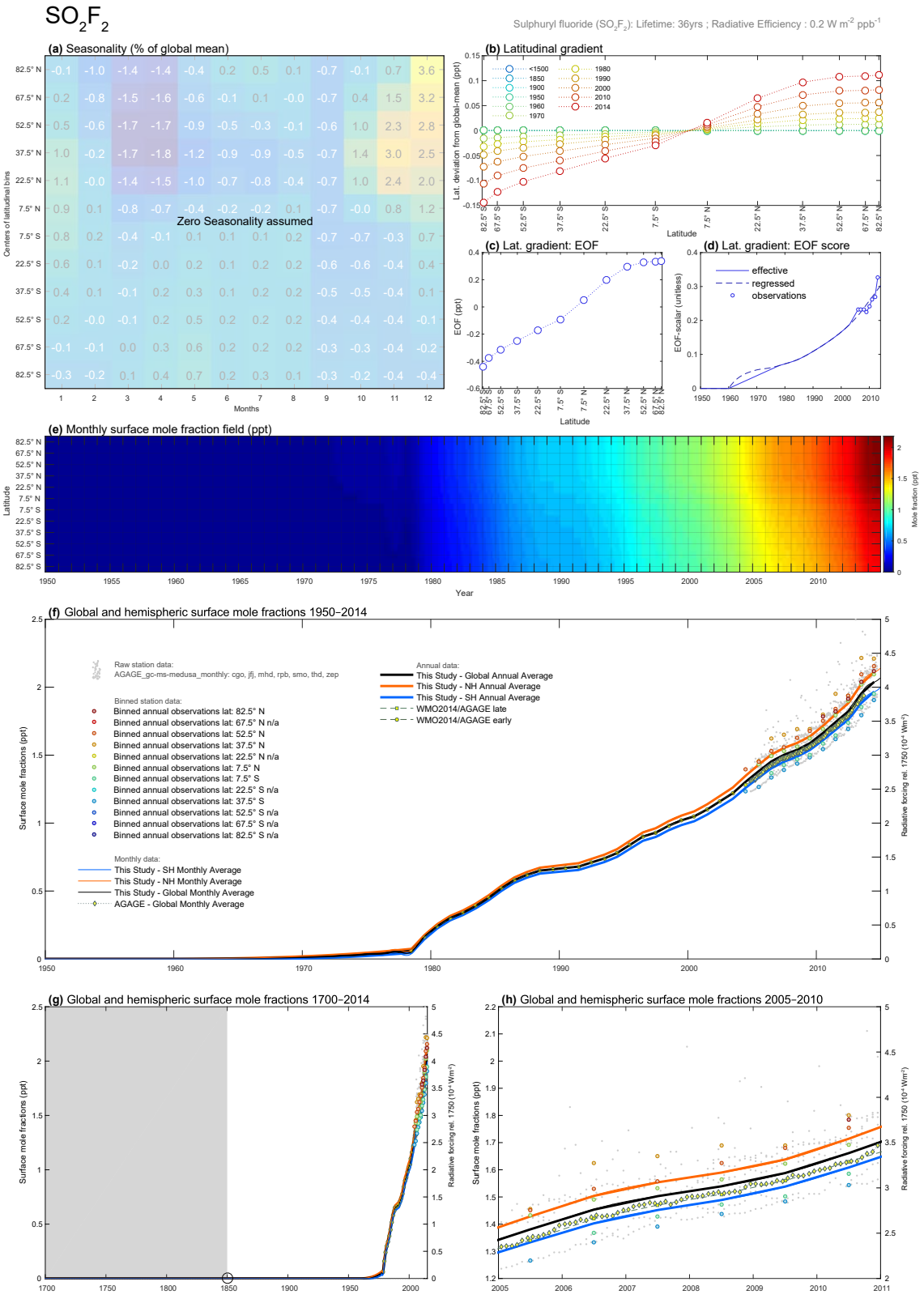

Figure S40. SO_2F_2 Factsheet

2 Supplement B:
CMIP5 Analysis of CO_2 concentration fields

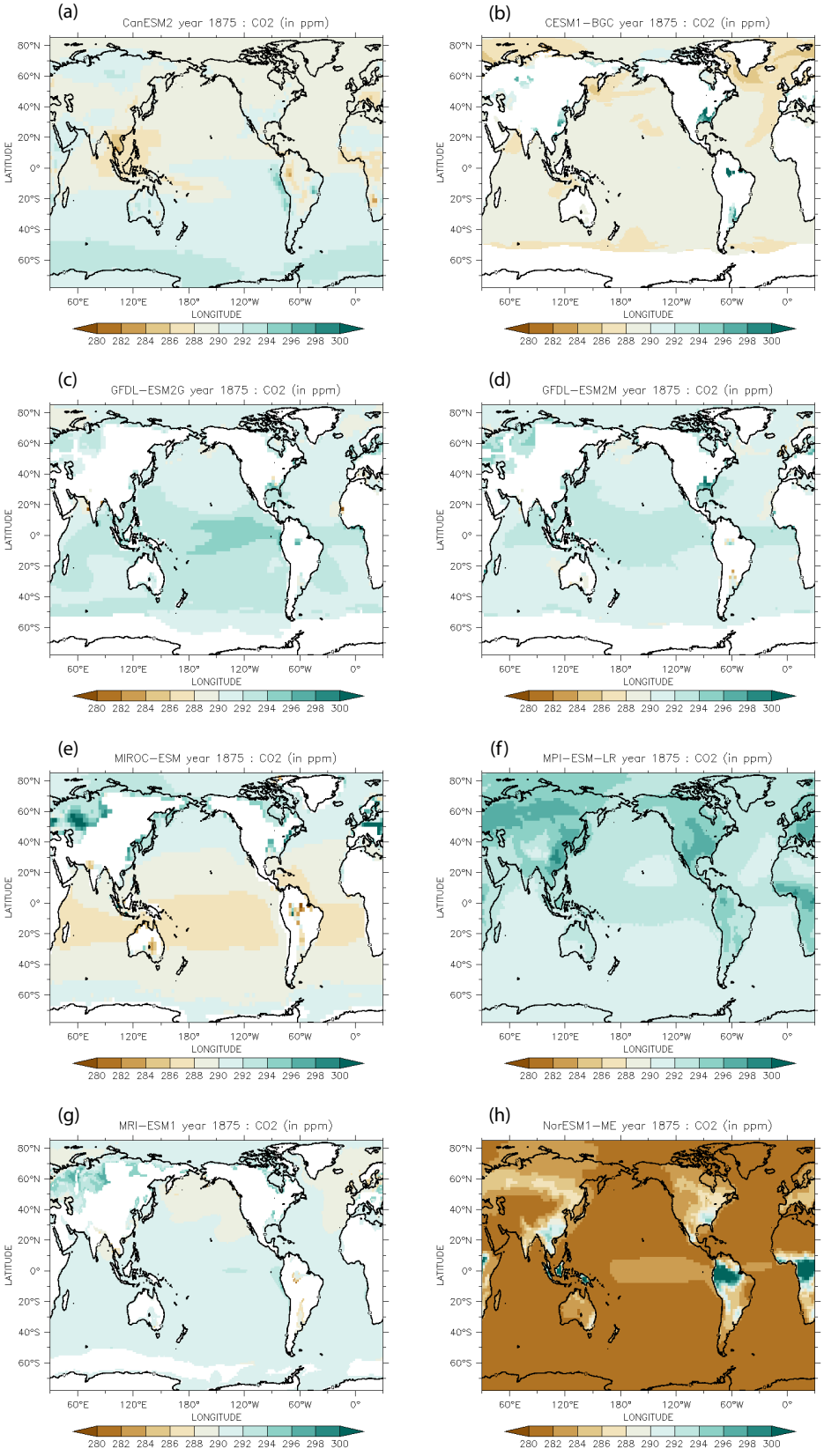

Figure S41. Annual mean CO_2 concentrations in 8 CMIP5 ESM models in the year 1875. The CMIP5 recommended value was 288.7 ppm for 1875. Two more models with higher average CO_2 concentrations, namely BNU-ESM and FIO-ESM, are shown in Fig. S47.

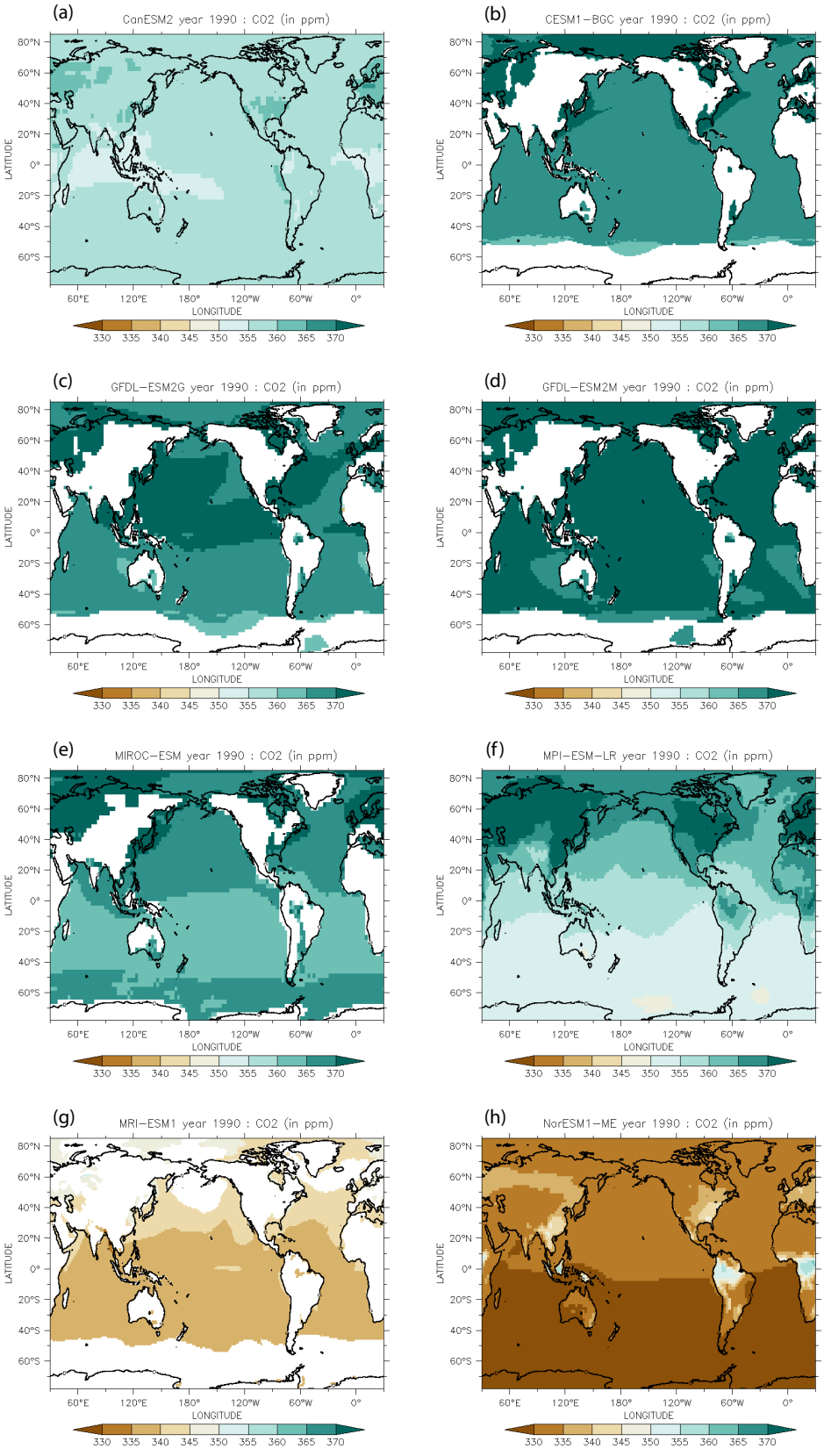

Figure S42. Annual mean CO_2 concentrations in 8 CMIP5 ESM models in the year 1990. The CMIP5 recommended value was 353.885 ppm for 1990 in the historical experiment.

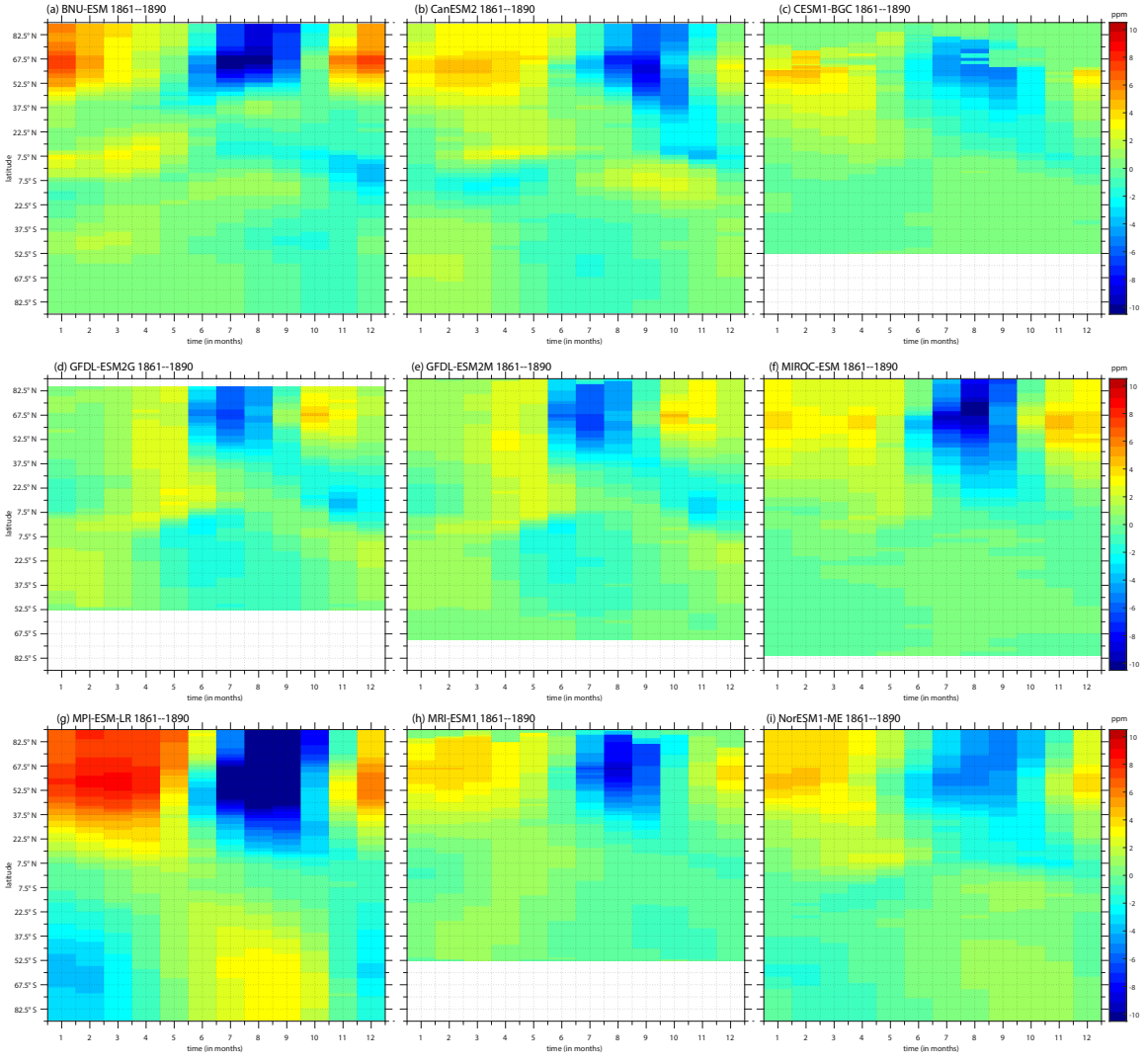

Figure S43. Climatological seasonal cycle of CO_2 concentrations in 9 CMIP5 ESM models for the historical experiment's 30-year period 1861-1890.

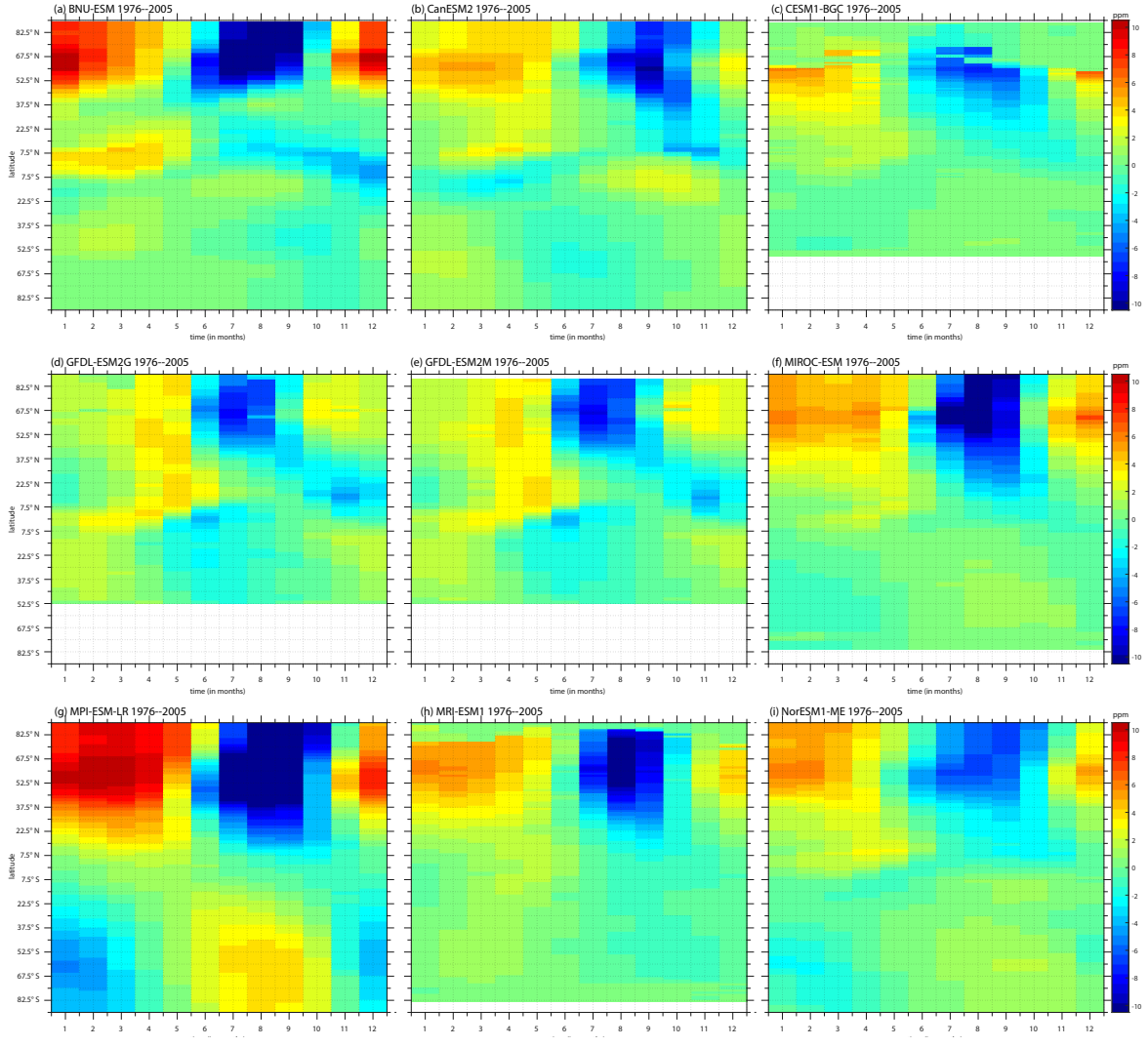

Figure S44. Climatological seasonal cycle of CO_2 concentrations in 9 CMIP5 ESM models for the historical experiment's 30-year period 1976-2005.

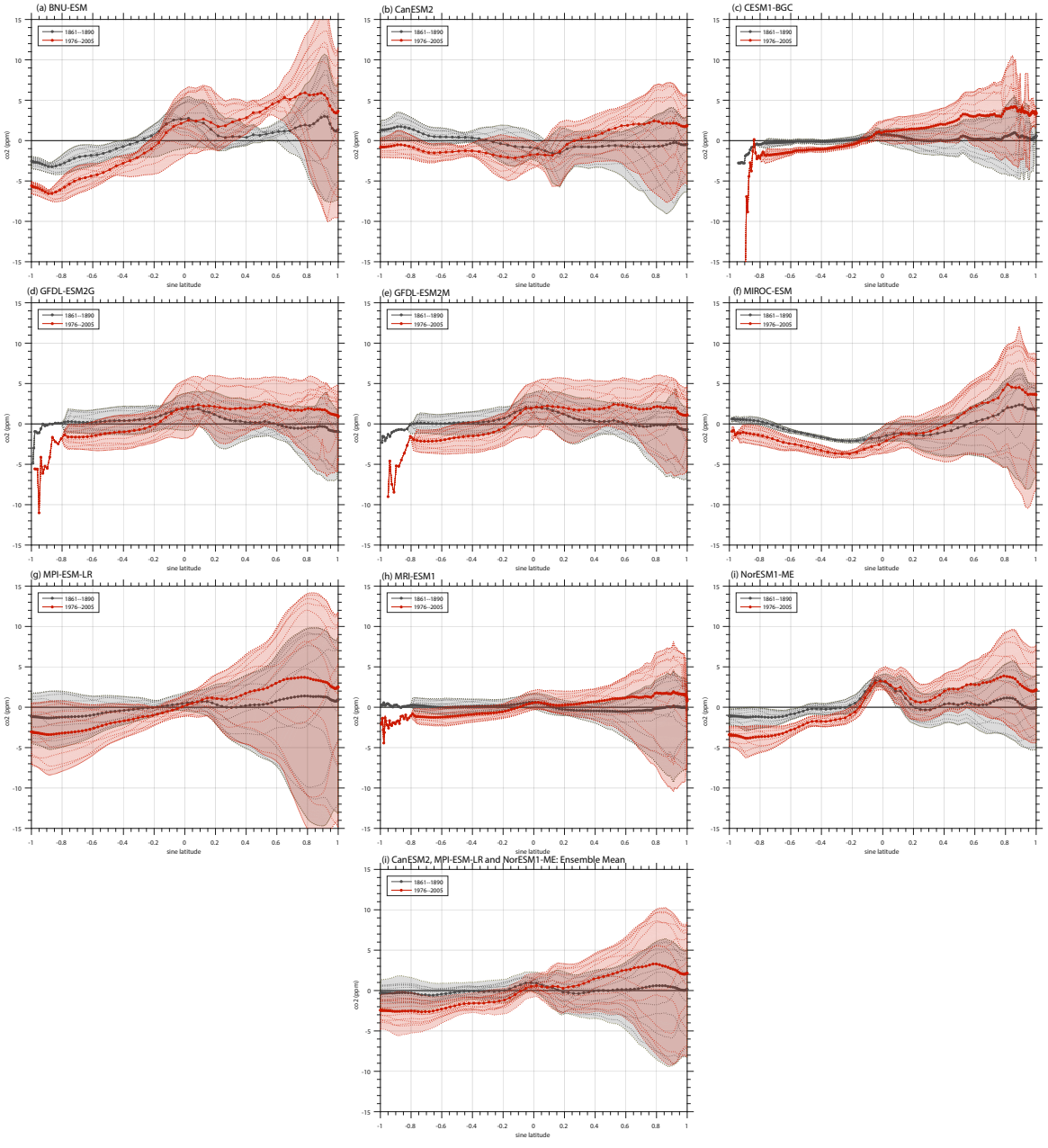

Figure S45. Latitudinal gradient of surface atmospheric CO_2 concentrations exhibited in 9 considered CMIP5 ESM models for both the preindustrial period (grey lines) and recent period 1976-2005 (red lines). The bold dotted lines indicate the annual means. The 12 finer lines represent the individual twelve monthly averages over the respective 30 year periods (shaded areas show the min-max of those monthly averages). The lowest panel shows an ensemble mean for three CMIP5 ESMs, namely CanESM2, MPI-ESM-LR and NorESM1-ME.

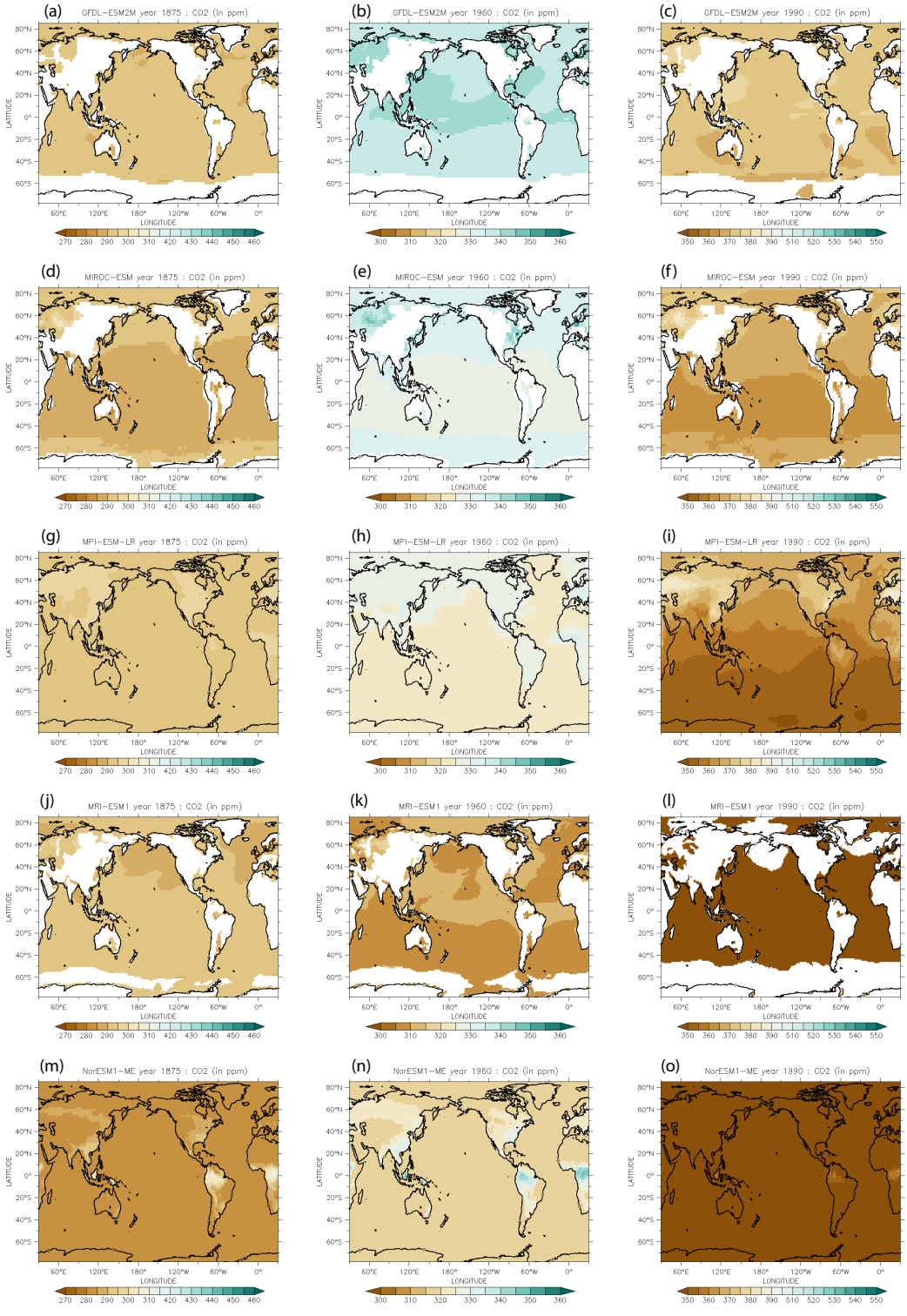

Figure S46. Annual average CO_2 concentration fields diagnosed from CMIP5 ESM models for the years 1875 (left column), 1960 (middle column), and 1990 (right column). All models are on the same colour scale, with colouring steps at 5 ppm. 1990 annual average CO_2 concentrations are estimated in this study to be 354.07 ppm and had been specified for CMIP5 with 353.855 ppm.

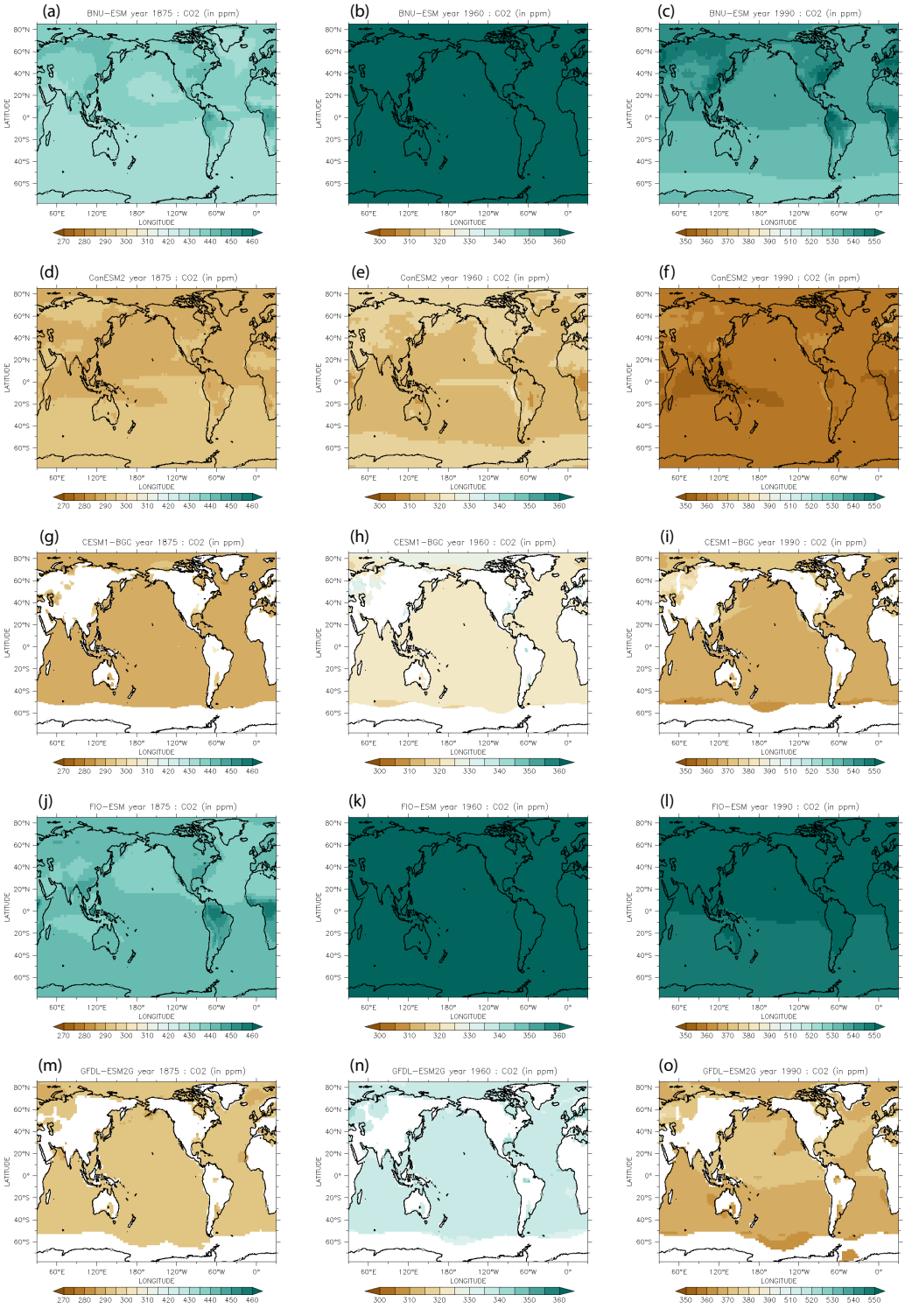

Figure S47. As Fig. S46, but for a different set of five CMIP5 ESM models.