the first building the SHF increased only to 0.72 and the solar gain per unit area has dropped to 153 Kbtu/sf.Year.

The building with the Trombe wall (Hunn) had a solar glazing to floor area ratio of 0.2. The solar gain per unit area was 153 Kbtu/sf.Year and the SHF 0.57. In the Jones Report the performance of the Trombe wall in this building was reported separately. The total incident radiation on the wall (with 250 sf), from November through April, was 58.0 Mbtu and the heat transmitted to the building was 11.6 Mbtu. This yields an overal efficiency of 0.2.

Comparing the field performance of the Direct Gain with a Trombe wall demonstrates the lower efficiency, per unit collection area, of the TW. The measured lower collection efficiency of the TW as compared with a DG results apparently from the higher collection temperature (surface temperature) of the Trombe wall.

Table A-1: Summary of SANDIA Performance Data

Location	Owner	System	Solar Saving (MBtu/Yr)	SHF%	Ag/Af	USG/Sft KBtu/Yr
NM Santa Fe	Balcomb	SS	55.64	84	0.18	135
NM Santa Fe	M. Jones	Loop	78.33	84	0.20	147
NM Santa Fe	Williamson	DG	47.33	72	0.25	153
NM WhiteRock	Shankland	DG	63.58	66	0.14	170
NM Los Alamos	Hunn	TW	53.01	57	0.20	136
VA Star Tannery		WW&DG	25.11	80	0.48	46
NJ Princeton	Kelbaugh	TW&SS	36.50	83	0.50	39
VT Royalton	Green Mount	DG	27.43	34	0.10	165

Where:

Ag/Af =Ratio of Solar Glazing to Floor Areas.

The performance of the Balcomb building, with the sunspace, was monitored more extensively than maybe any other solar building and is documented in several, more recent, publications. This solar system is a hybrid one: a fan circulates hot air from the top of the sunspace through rockbeds underneath the floors of the living and the dining rooms, and back to the sunspace.

The building has a glazing to floor area ratio of 0.18. The total annual unit area solar gain was 135 Kbtu/sf.Y and the SHF 0.84. Although the SHF was higher than in the DG buildings, reflecting perhaps the much lower net heating load per unit floor area, the solar gain per unit area of solar glazing was lower.

The owners have commented that the temperature control requires opening and closing of the doors between the sunspace and the rooms according to the indoor comfort conditions and there is nothing critical about it. the temperature in the house was relatively stable and comfortable.

The M. Jones building has an under-floor passive collector and a passive thermosyphonic air loop between the collector and a rock bin storage. The circulation between the storage and the