$$P(Observations_t) \times P(Target\ in\ Cell_i \mid Observations_t) \times$$
$$P(Target\ Found\ in\ Cell_i \mid Target\ in\ Cell_i) P(Observations_t) =$$
$$P(Target\ in\ Cell_i \mid Observations_t) \times P(Target\ Found\ in\ Cell_i \mid Target\ in\ Cell_i) =$$
$$Belief_t[i] \times (1 - [False\ Negative\ Rate\ of\ Cell_i])$$