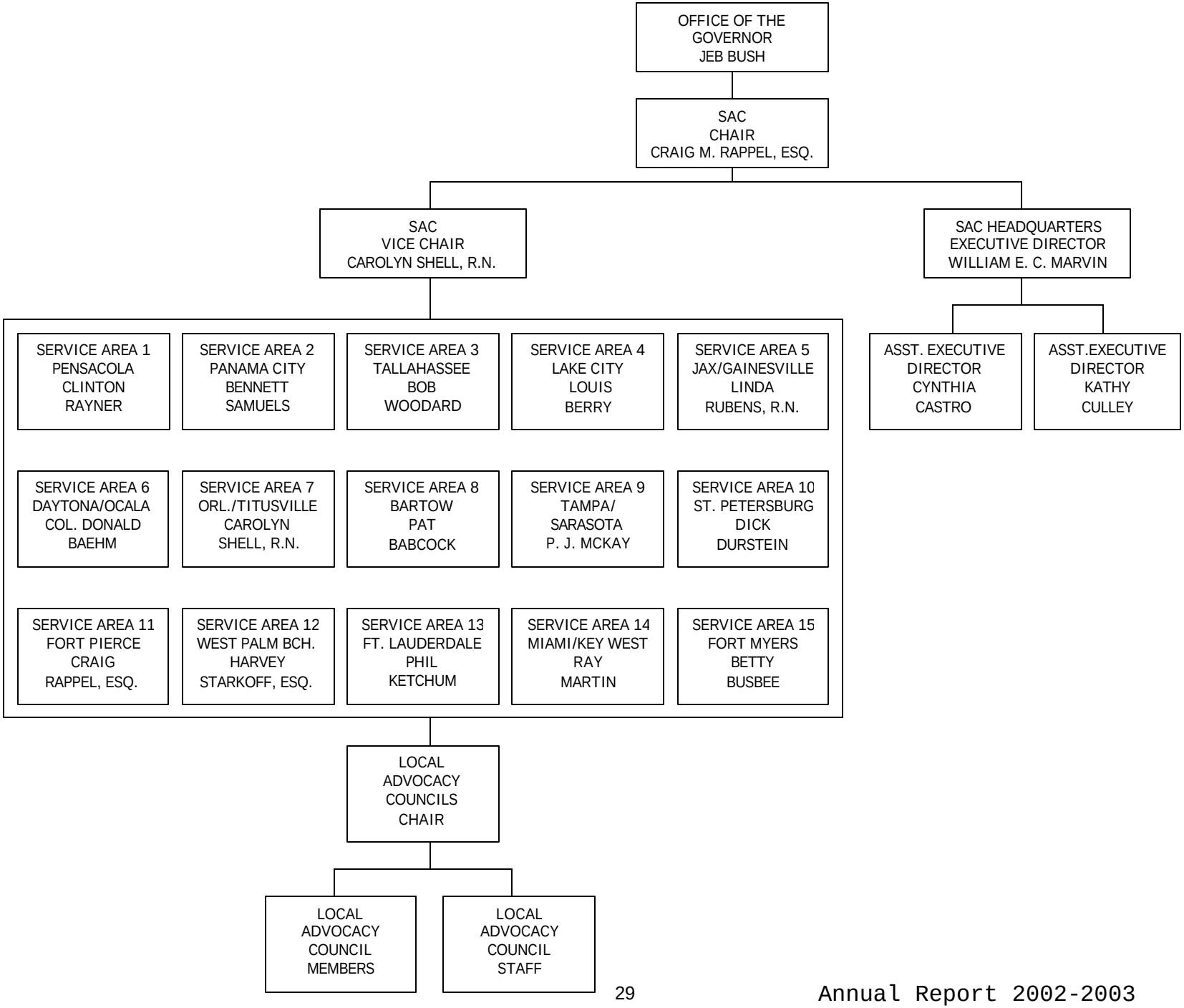SAC OPERATIONS