Round 2: Lieutenants Exchange Information

In the second round, each lieutenant shares with all other lieutenants what they received from the commander in Round 1.
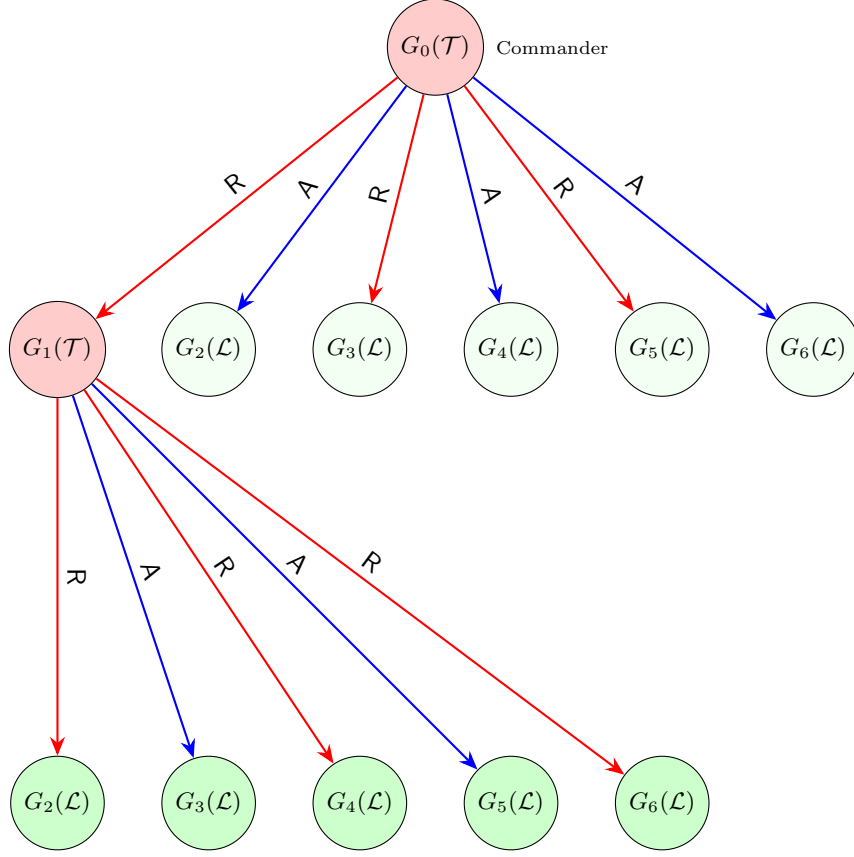

Figure 1: Round 2: Lieutenants exchange what they received from the commander. Traitor G_1 sends conflicting messages.

Receiver

	G_2	G_3	G_4	G_5	G_6
G_2	**R**	R	R	R	R
G_3	A	**A**	A	A	A
G_4	R	R	**R**	R	R
G_5	A	A	A	**A**	A
G_6	R	R	R	R	**R**
Majority	**R**	**R**	**R**	**R**	**R**

Legend: Rows (left) are senders, columns (top) are receivers. Each cell shows the message the sender tells the receiver that it received from G_1. Yellow diagonal: sender's own message from G_1. Blue = Attack (A), Red = Retreat (R).

$G_1(\mathcal{T})$	$G_2(\mathcal{L})$	$G_3(\mathcal{L})$	$G_4(\mathcal{L})$	$G_5(\mathcal{L})$	$G_6(\mathcal{L})$
R	**R**	**R**	**R**	**R**	**R**
	A				
		R			
			A		
				R	
					A

After Round 2, each loyal lieutenant can determine the consensus by taking a majority vote of all reported values. Despite the conflicting information from the traitors, all loyal lieutenants reach the same conclusion: Retreat (R).