## Intelligent Life Elsewhere in the Universe?

Guidelines for this debate
$\Phi$ We will only look at the possibilities of intelligent life
$\Phi$ We have not found evidence for intelligent ET life
$\Phi$ The Drake Equation will be used to define numbers for this debate


## Format for the Debate



5 minute opening statement for intelligent ET life 5 minute opening statement against intelligent ET life First question
Ф 2 min response from the no intelligent ET life side Ф 2 min response from the for intelligent ET life side Ф 1 min rebuttal from the for intelligent ET life side Ф 1 min rebuttal from the no intelligent ET life side Second question
Ф 2 min response from the for intelligent ET life side Ф 2 min response from the no intelligent ET life side Ф 1 min rebuttal from the no intelligent ET life side Ф 1 min rebuttal from the for intelligent ET life side



## Drake Equation

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\# of Civilizations $=N_{\text {hp }} \times \chi_{\text {life }} \times \chi_{\text {civ }} X$ $x_{\text {now }}$
ФSuppose $10^{11}$ planets in our galaxy $\Phi 5$ in $10^{2}$ are habitable $=>5 \times 10^{9}$ planets
©8 in 10 have life $=>4 \times 10^{9}$ planets
cb 6 in $10^{5}$ have civilizations capable of
interstellar communication $=>2.5 \times 10^{5}$
planets
$\Phi 4$ in $10^{5}$ currently exist => 10
communicating civilizations in existence in
our galaxy


## We are alone.

$\Phi$ Project Ozma
$\Phi$ Project Phoenix
$\Phi$ The Drake Equation
Ф Clip : Contact Intro


## Project Phoenix

Ф Most ambitious search for extraterrestrial life ever.
Ф February 1995 through March 2004,there were three observing campaigns using the world's largest radio telescopes, targeting about 800 stars to a distance of about 240 light years.
Ф Sensitive to transmitters with power like our military airport radars.
$\Phi$ No extraterrestrial signals were detected with more than 11,000 hours of observing from telescopes in Australia, West Virginia and Puerto Rico.


## Question 2

Should the US/NASA fund the search for intelligent ET life?


## Question 6

What fraction of those habitable life bearing planets capable of interstellar communication are alive today?

