KIC 006600338

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_\star$ ($R_\odot$)	$T_\star$ (K)	R_p ($R_\oplus$)	S_p ($S_\oplus$)
006600338-01	OBS	No	579.224734	309.883637	1002.5	12.530	7.3	7.5	0.70	5396	4.38	0.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006600338-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—CENT_FEW_DIFFS

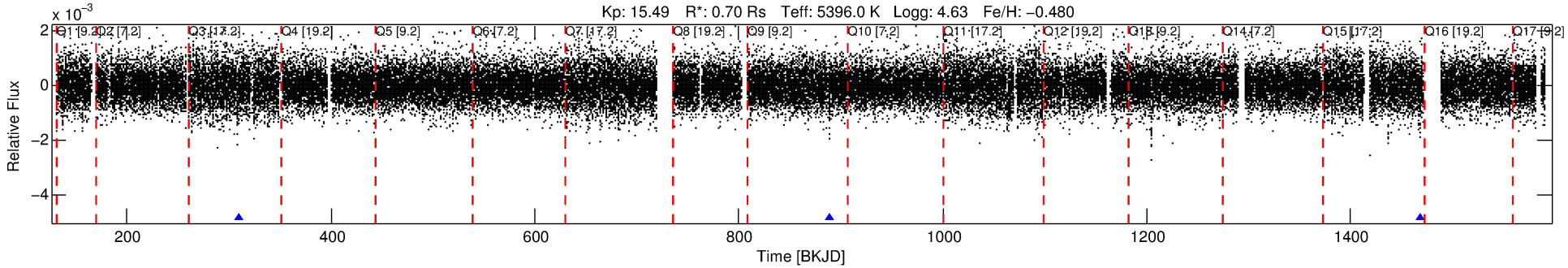
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

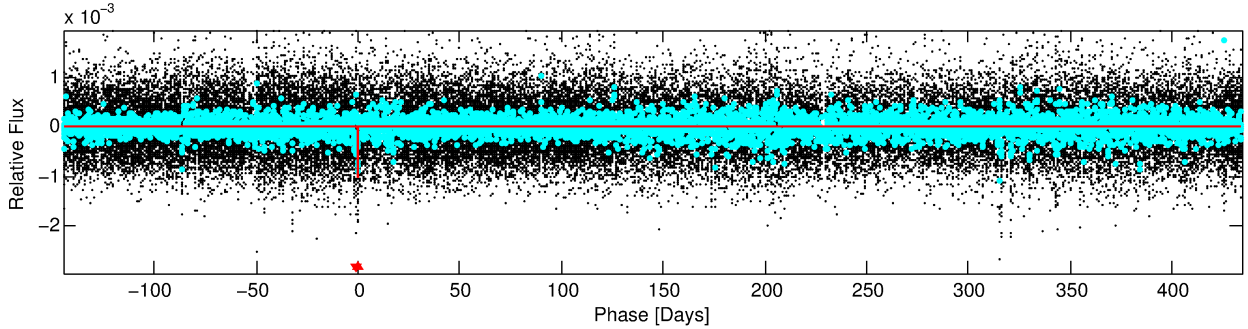
Ephemeris Match Information For 006600338-01

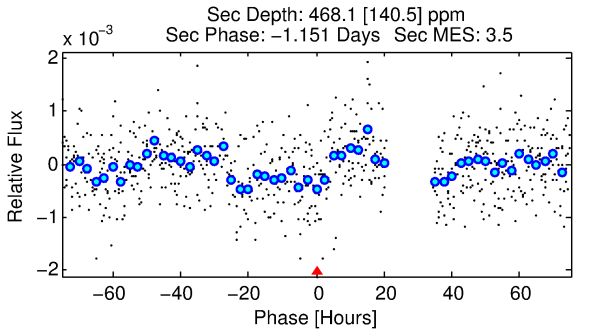
No Significant Match Found

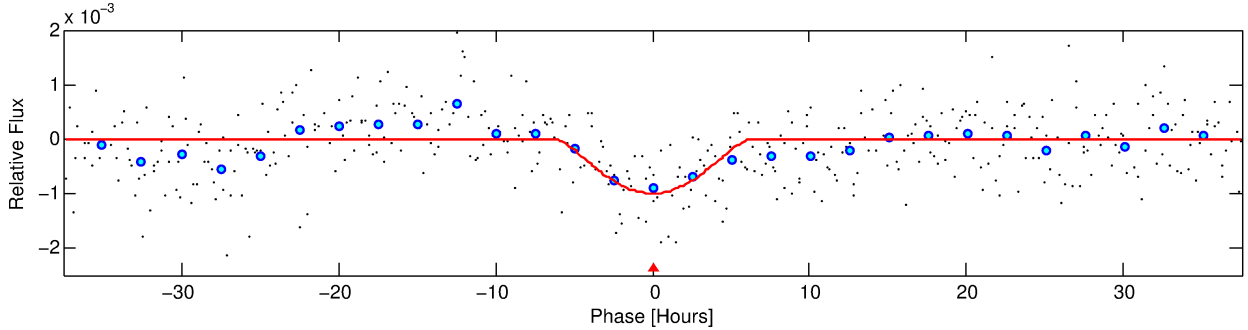
DV One-Page Summary

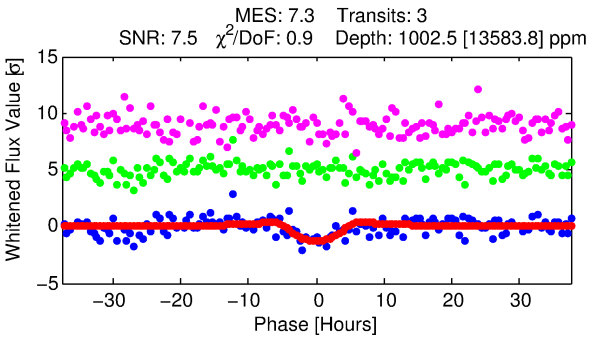
KIC: 6600338 Candidate: 1 of 1 Period: 579.225 d

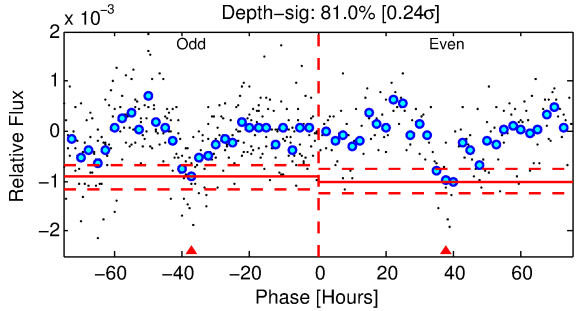


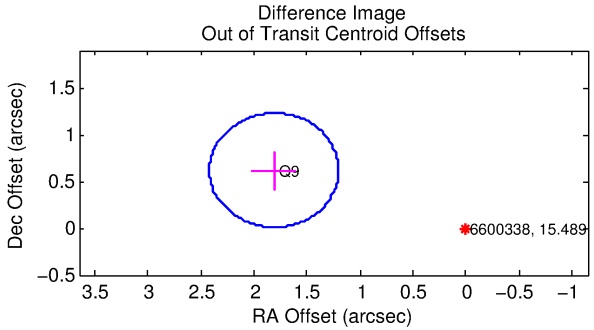












DV Fit Results:

Period = 579.22473 [0.02198] d
Epoch = 309.8836 [0.0305] BKJD
Rp/R* = 0.0571 [0.2474]
a/R* = 121.05 [122.65]
b = 1.00 [0.16]

Seff = 0.24 [0.05]
Teq = 179 [10] K
Rp = 4.38 [18.97] Re
a = 1.2469 [0.1668] AU

Ag = 20911.56 [181328.08] [0.12σ]
Teffp = 3321 [7198] K [0.44σ]

DV Diagnostic Results:

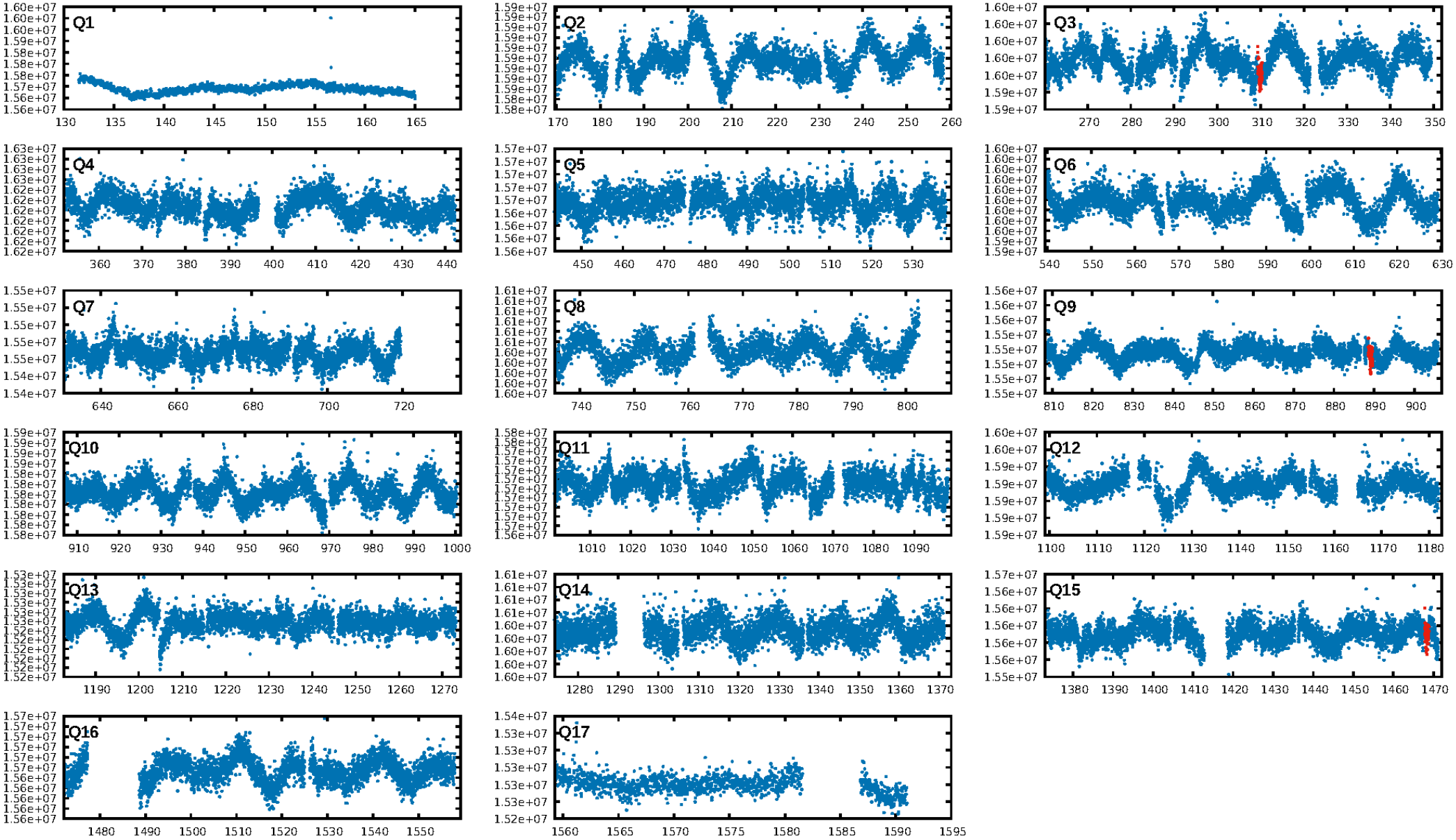
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: 97.4%
ModelChiSquareGof−sig: 99.4%
Bootstrap−pfa: 2.20e−09
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 1.559

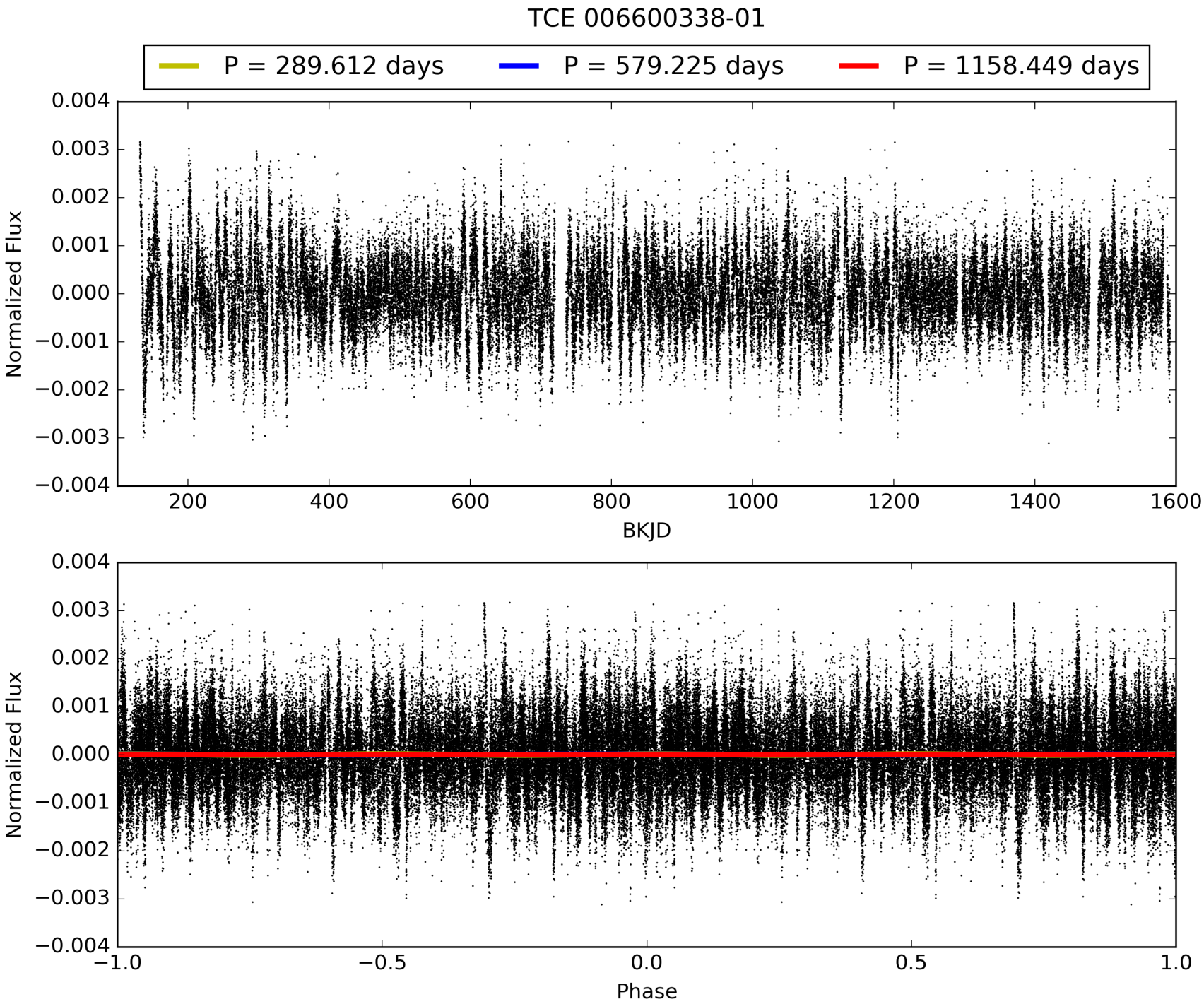
Centroid−sig: 4.9%
Centroid−so: 2.531 arcsec [1.10σ]
OotOffset−rm: 1.914 arcsec [9.42σ]
KicOffset−rm: 1.943 arcsec [9.57σ]
OotOffset−st: 0/0/0/1 [1]
KicOffset−st: 0/0/0/1 [1]
DiffImageQuality−fgm: 1.00 [1/1]
DiffImageOverlap−fno: 1.00 [3/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29−Jan−2016 17:31:32 Z

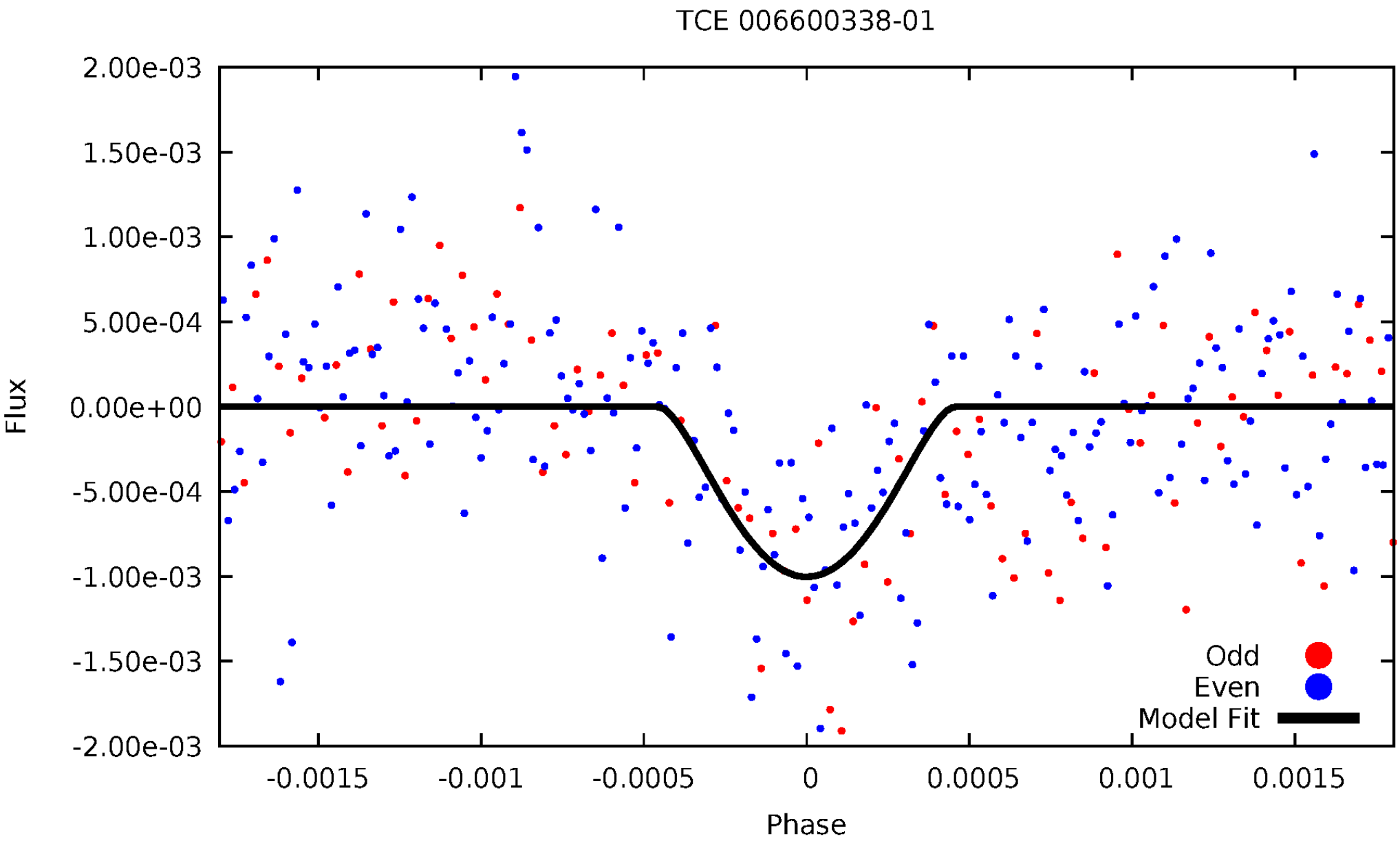
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006600338-01, PDC Light Curves

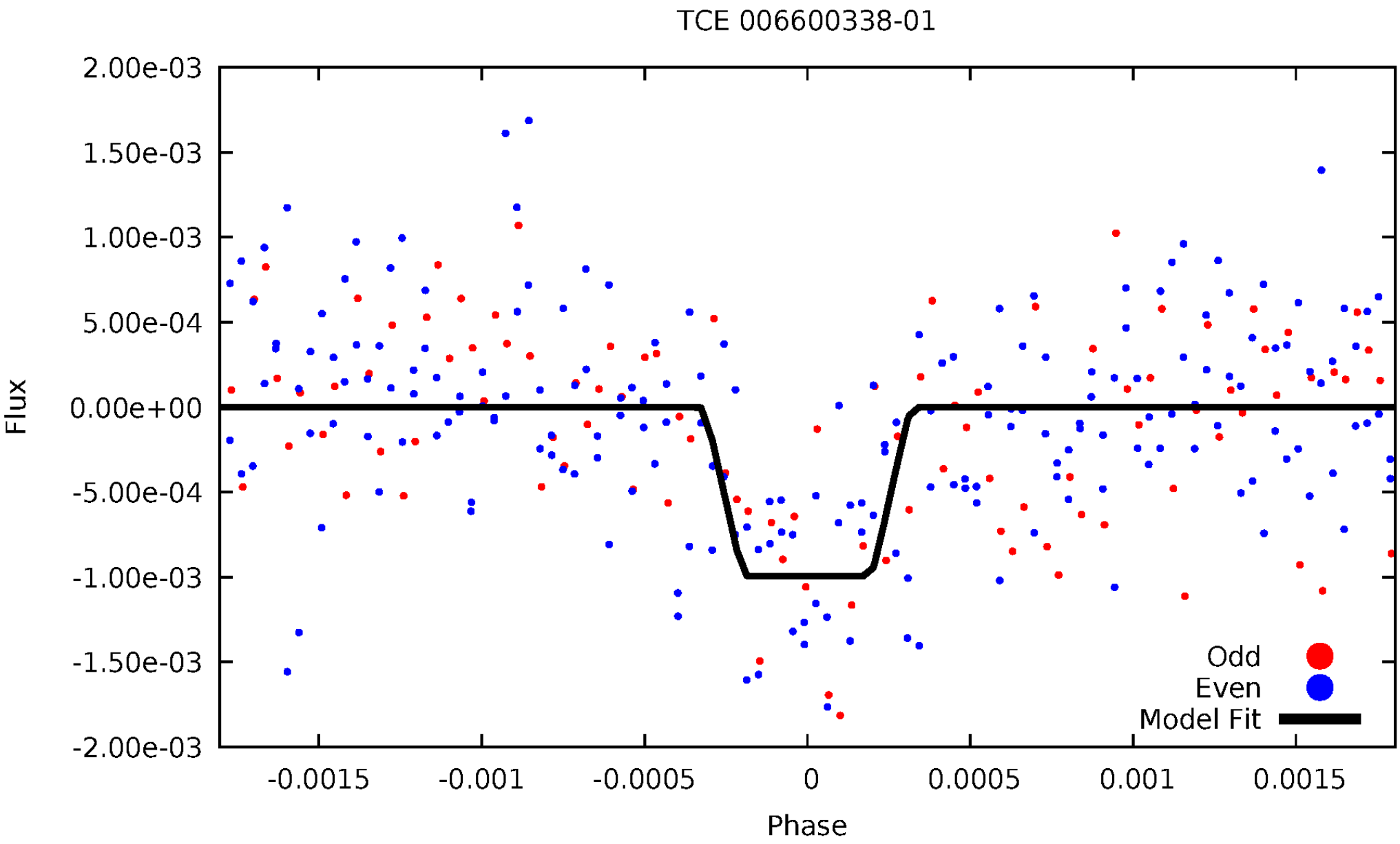



TCE 006600338-01
P = 289.612 days
P = 579.225 days
P = 1158.449 days
Normalized Flux
BKJD
Normalized Flux
Phase

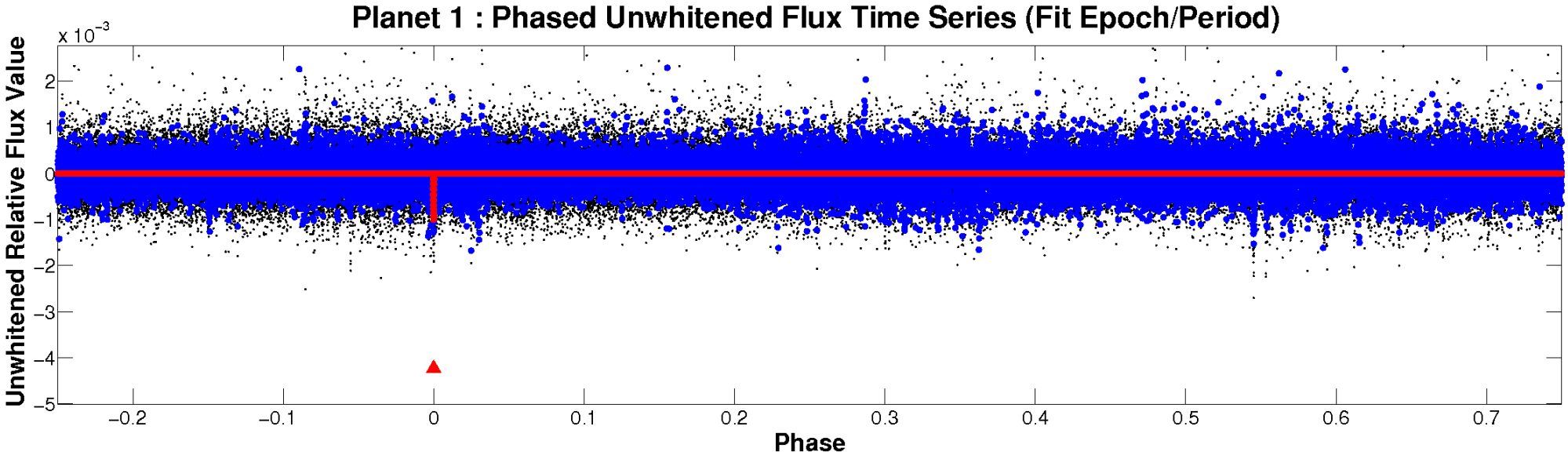
DV Odd/Even

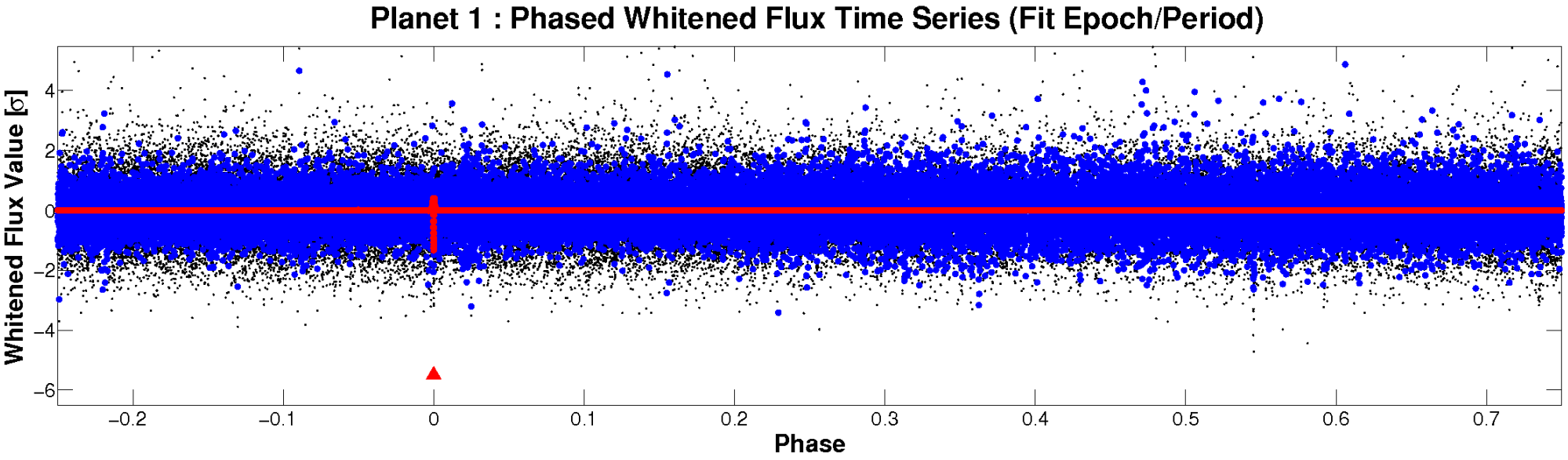

TCE 006600338-01
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
Flux
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006600338-01
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
Flux
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit

Non-Whitened Vs. Whitened Light Curve



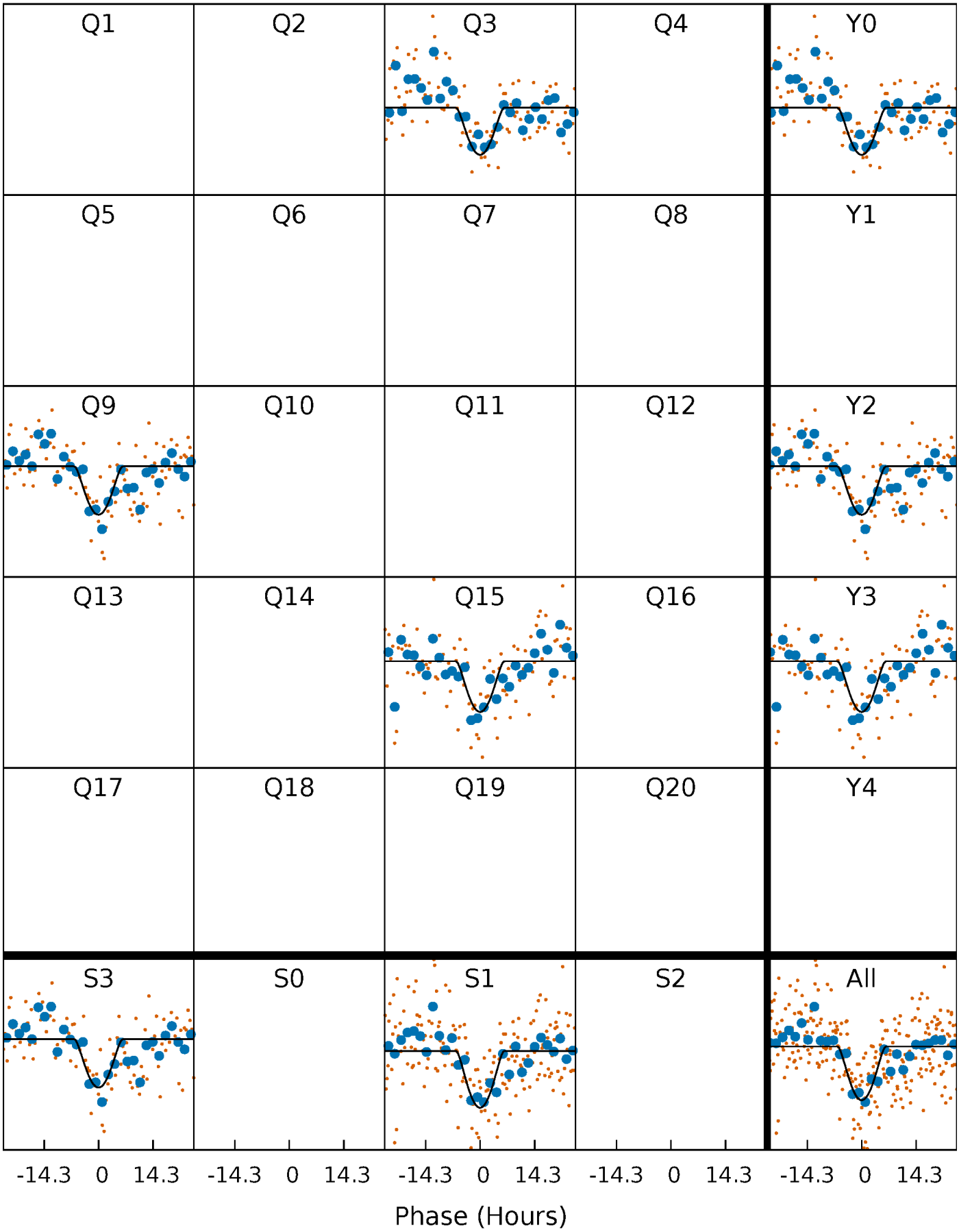


PDC Quarter-Phased Transit Curves

TCE 006600338-01 P=579.224734 Days T_0=309.883637 (BKJD)

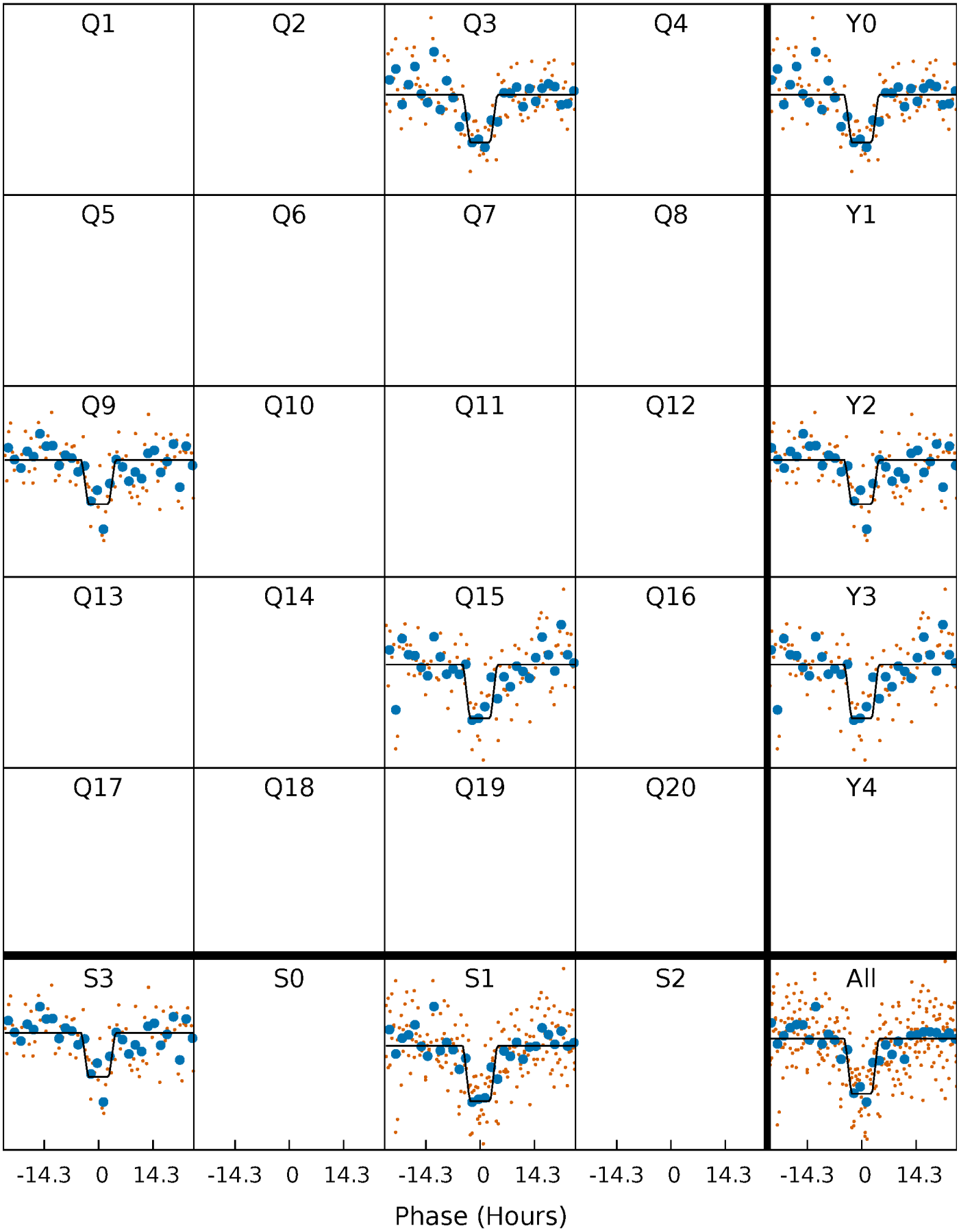
DV Quarter-Phased Transit Curves

TCE 006600338-01 P=579.224734 Days T_0=309.883637 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

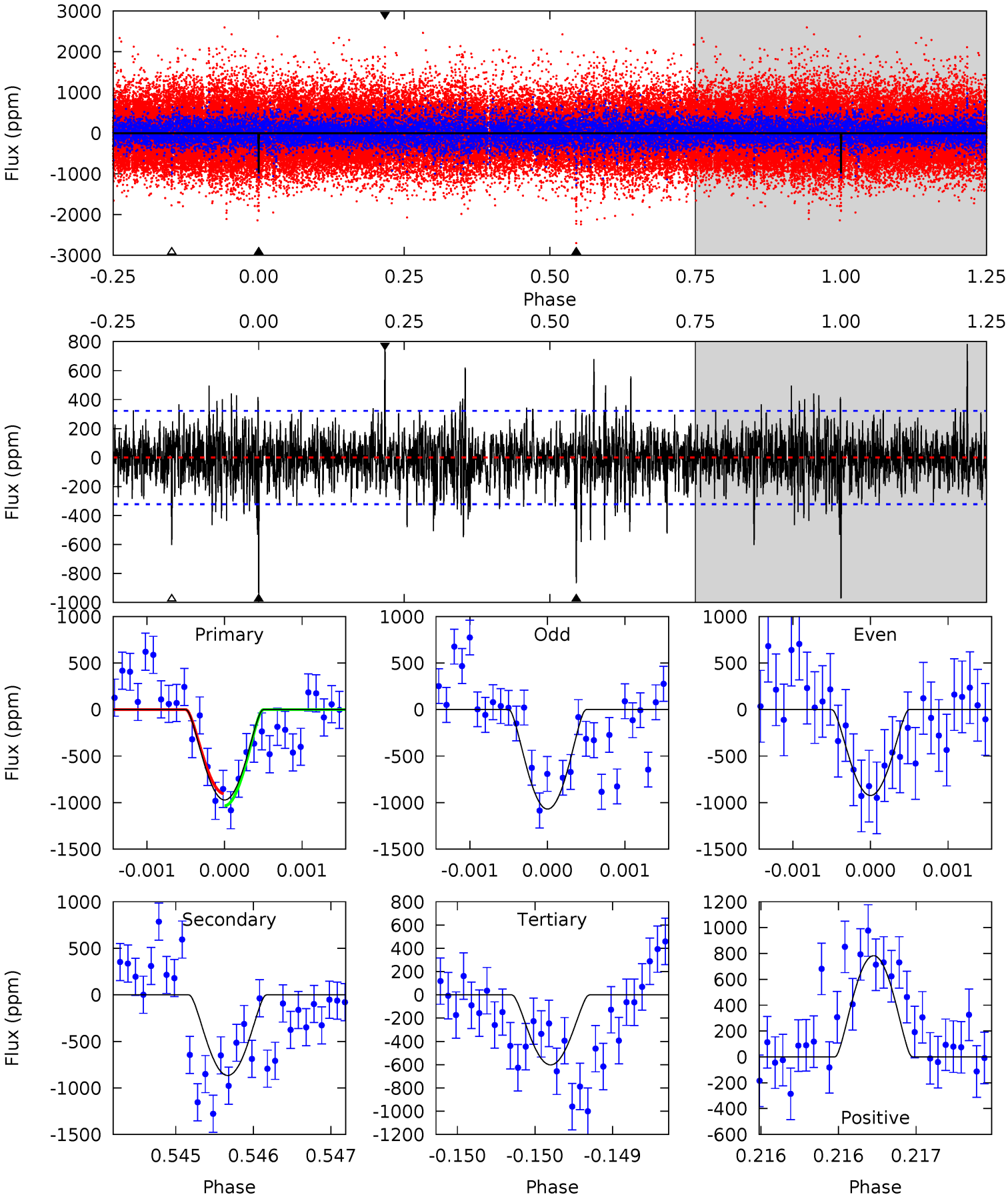
TCE 006600338-01 P=579.209692 Days T_0=309.902612 (BKJD)



DV Model-Shift Uniqueness Test

006600338-01, P = 579.224734 Days, E = 309.883637 Days

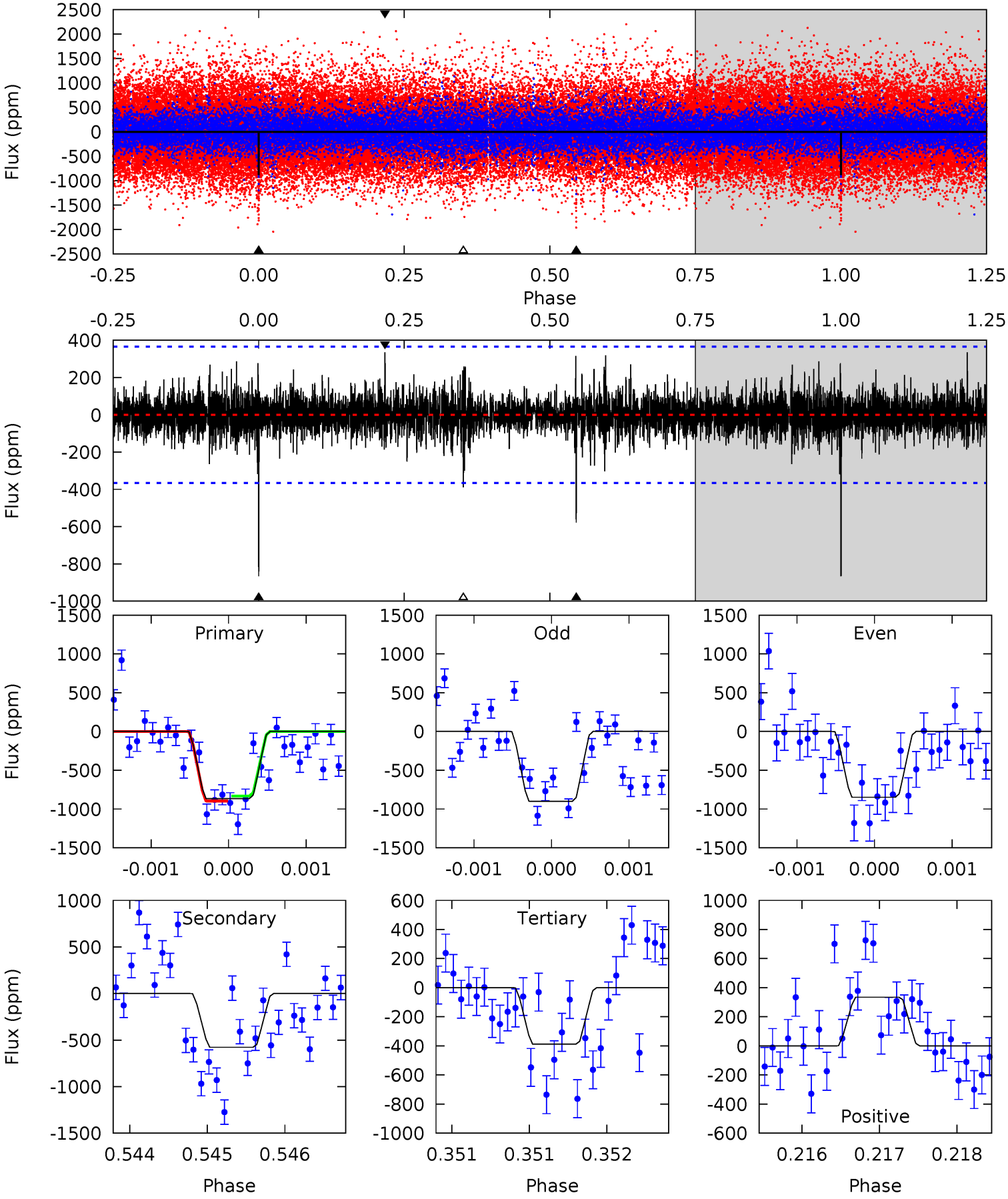
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.5	14.7	10.2	13.3	5.47	3.31	2.39	6.29	3.22	4.49	1.42	1.16	0.95	0.45	1.10



Alt Model-Shift Uniqueness Test

006600338-01, P = 579.209692 Days, E = 309.902612 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	8.73	5.87	5.07	5.53	3.41	1.09	7.22	8.03	2.86	3.67	0.36	0.96	0.28	0.49



Stellar Parameters For KIC 006600338

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5396^{+162}_{-162}	$4.632^{+0.032}_{-0.097}$	$-0.480^{+0.300}_{-0.300}$	$0.702^{+0.117}_{-0.047}$	$0.784^{+0.075}_{-0.082}$	$3.194^{+0.449}_{-0.983}$
	+3%/-3%	+1%/-2%	+62%/-62%	+17%/-7%	+10%/-10%	+14%/-31%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006600338-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-866±59	$15.38^{+14.45}_{-11.50}$	253^{+10}_{-10}	2858^{+1534}_{-469}	3238^{+47712}_{-2397}
Alt.	-577±66	$14.45^{+13.29}_{-9.97}$	253^{+10}_{-10}	2719^{+1185}_{-417}	2319^{+23004}_{-1688}

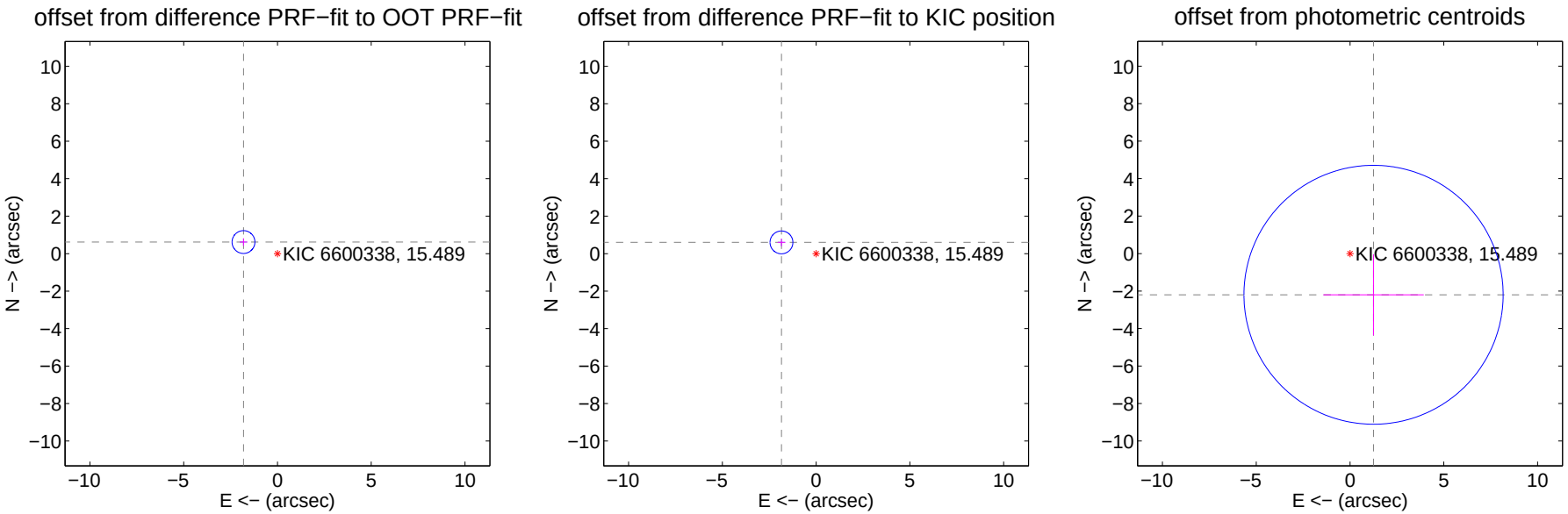
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

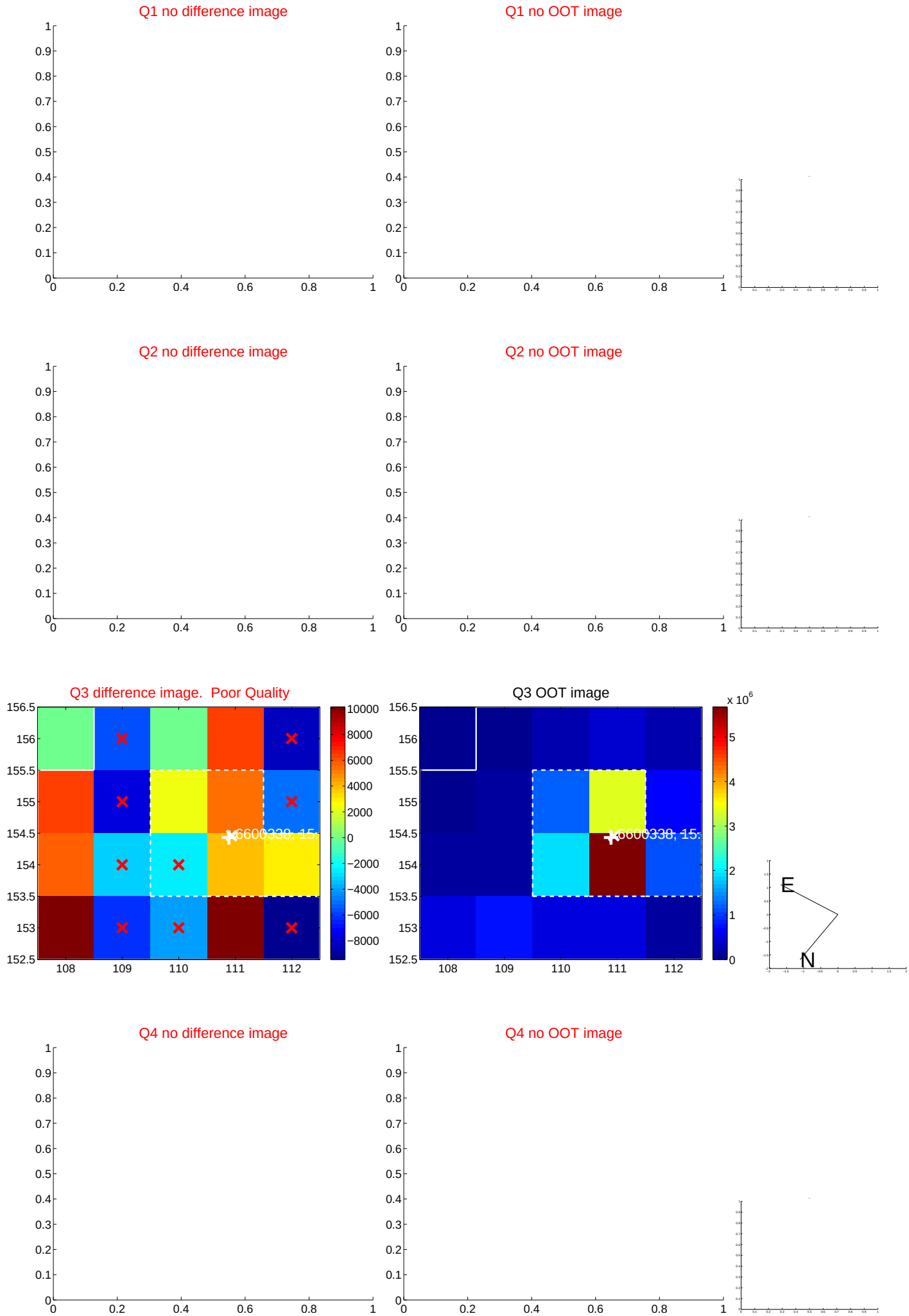
Supplemental centroid analysis for 006600338-01. Kepler magnitude: 15.49. Transit SNR 7.51
There are 1 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.914 ± 0.203	9.42	1.811 ± 0.203	0.619 ± 0.201
PRF-fit source offset from KIC position	1.943 ± 0.203	9.57	1.848 ± 0.203	0.601 ± 0.201
photometric centroid source offset	2.53 ± 2.30	1.10	-1.25 ± 2.68	-2.20 ± 2.17

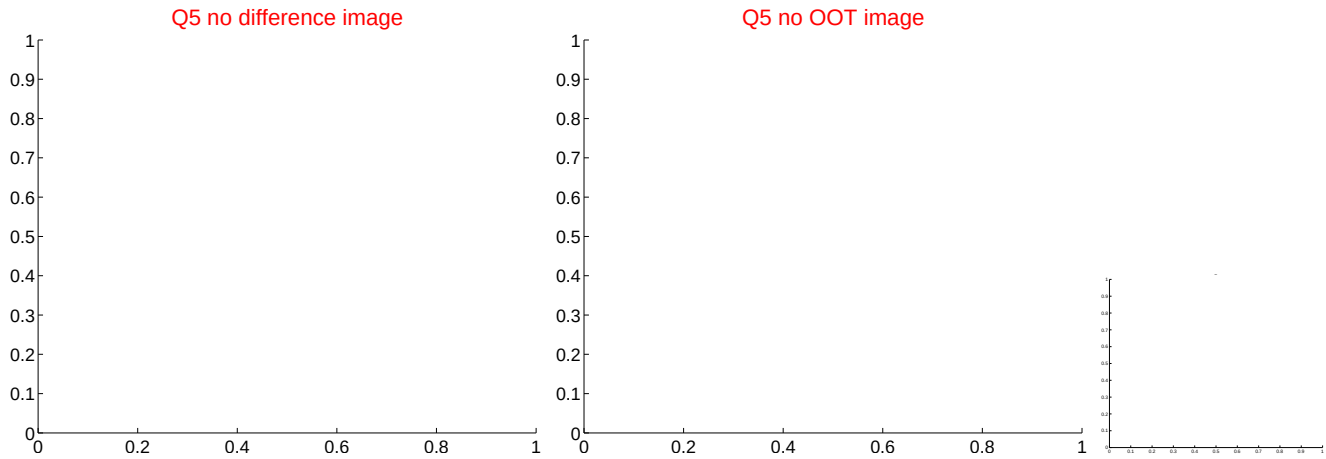


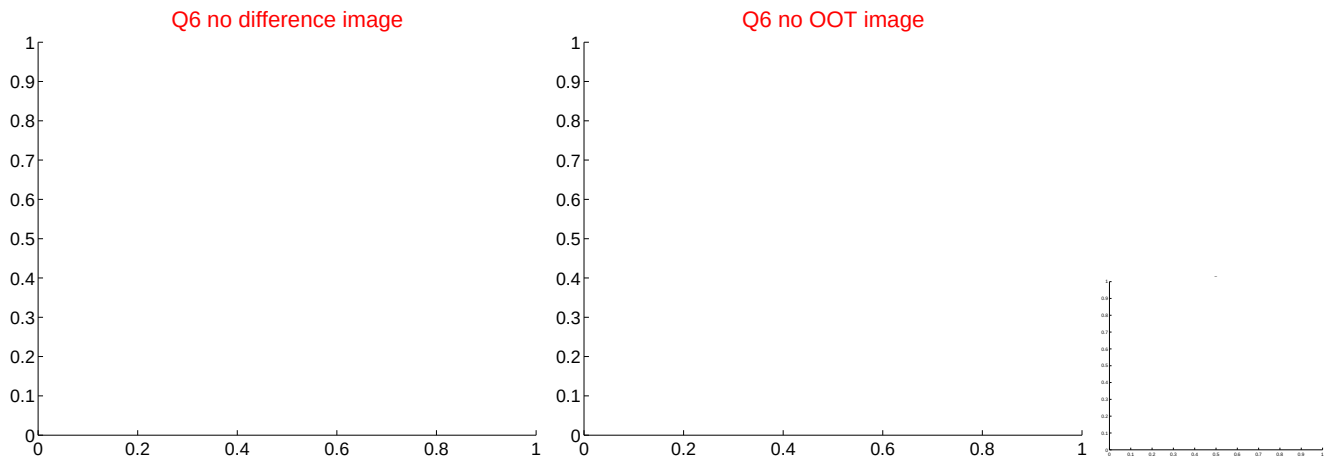
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

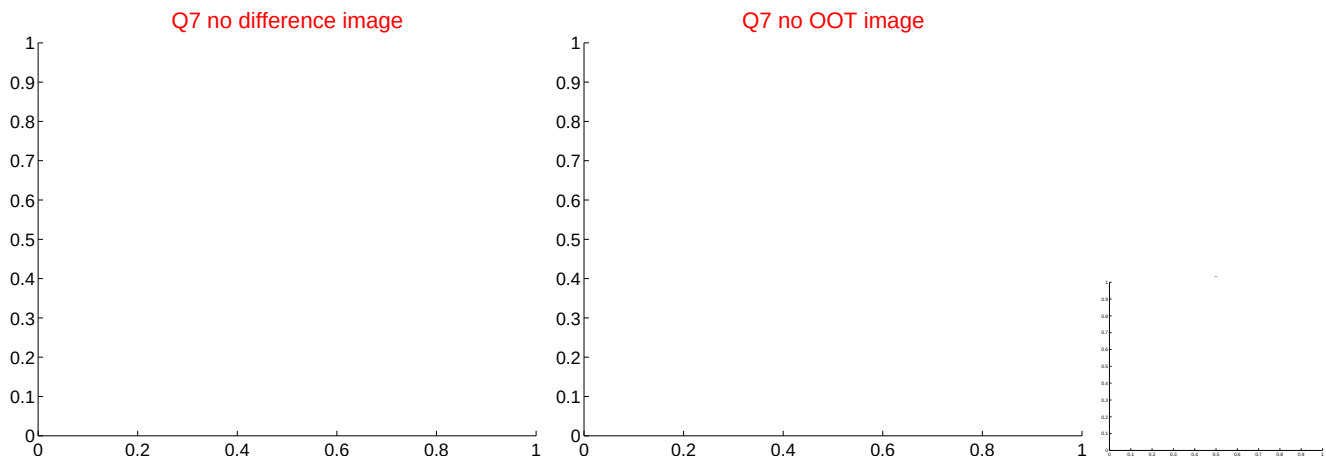
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

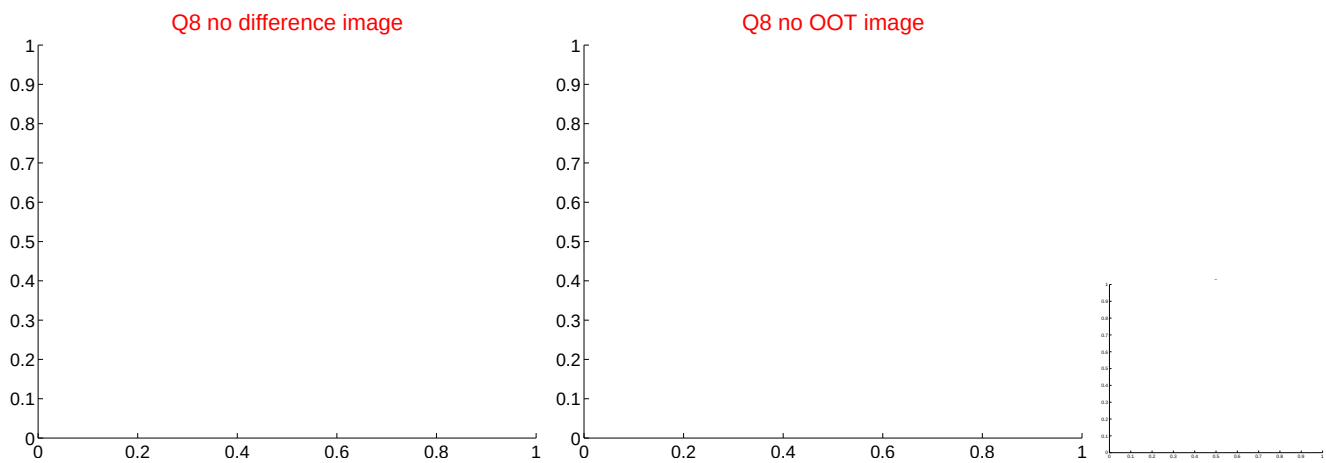


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

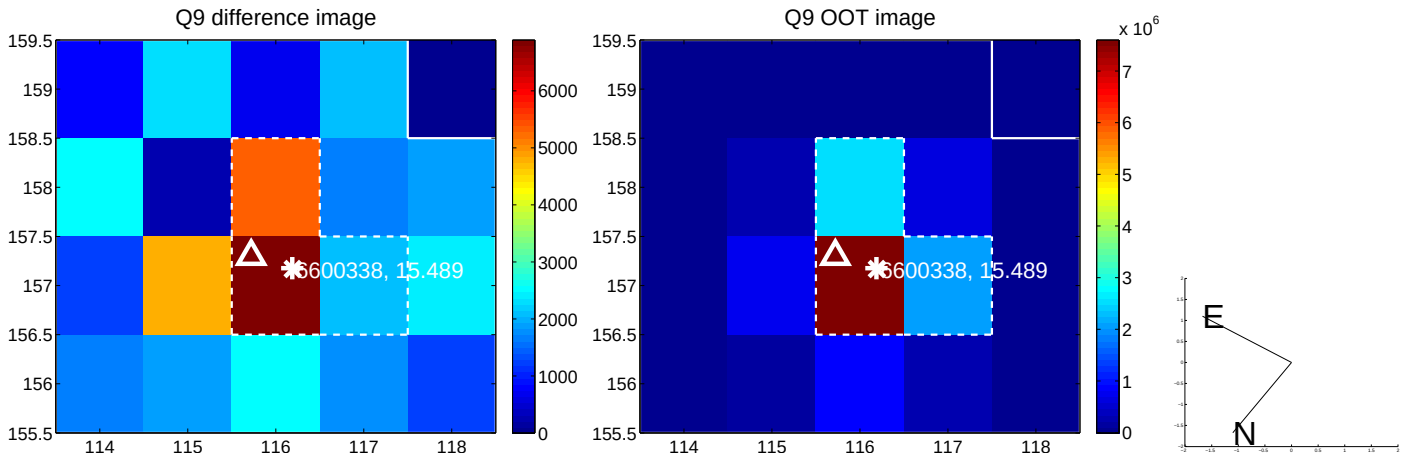


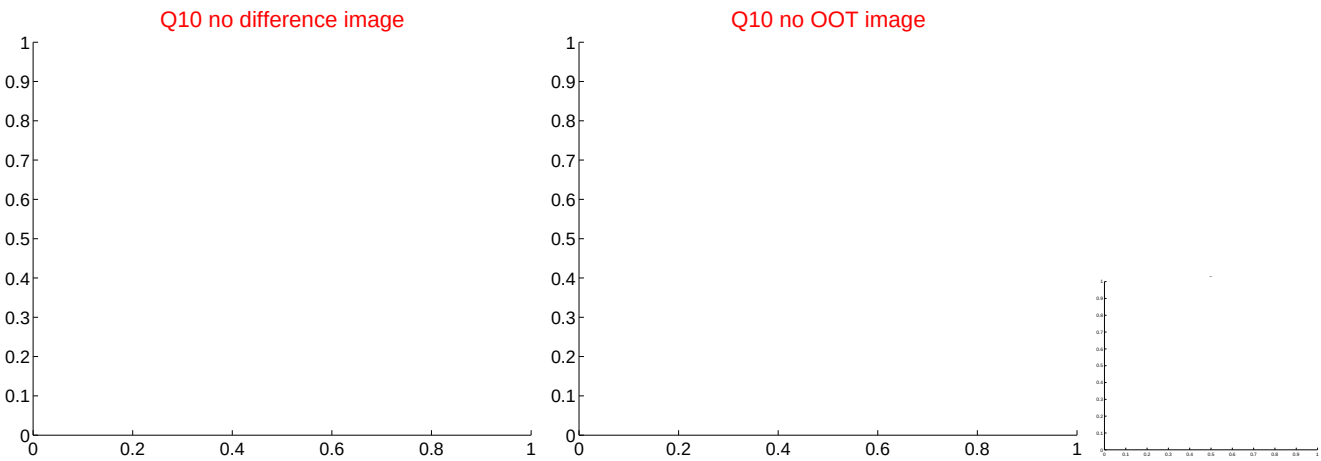


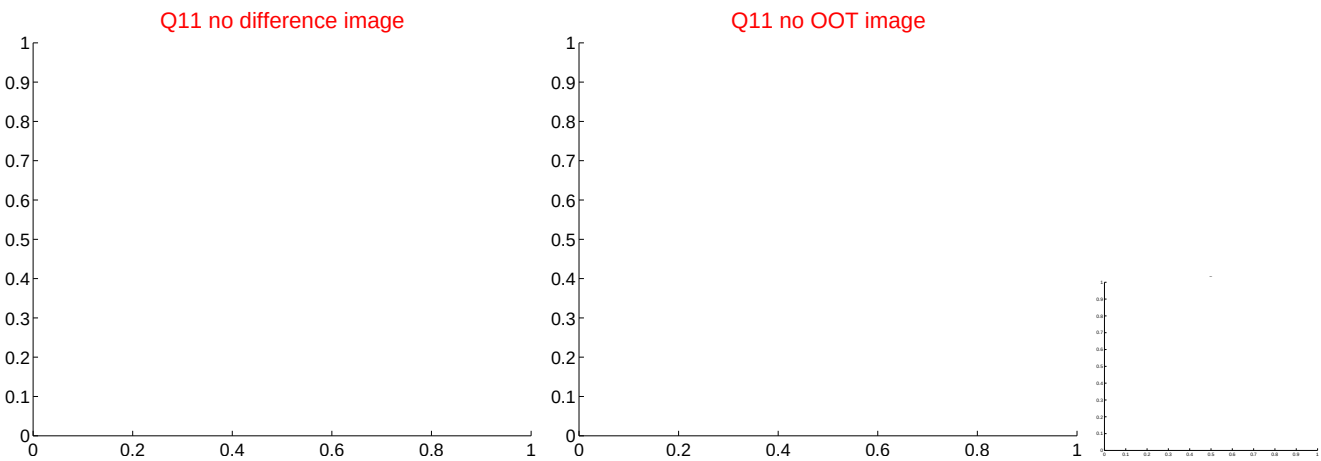


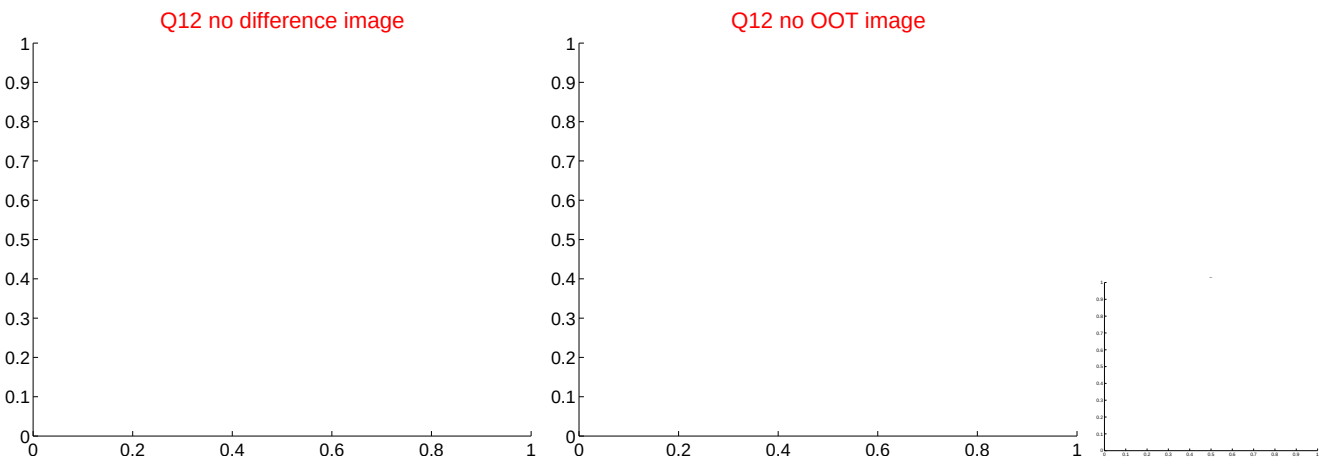


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

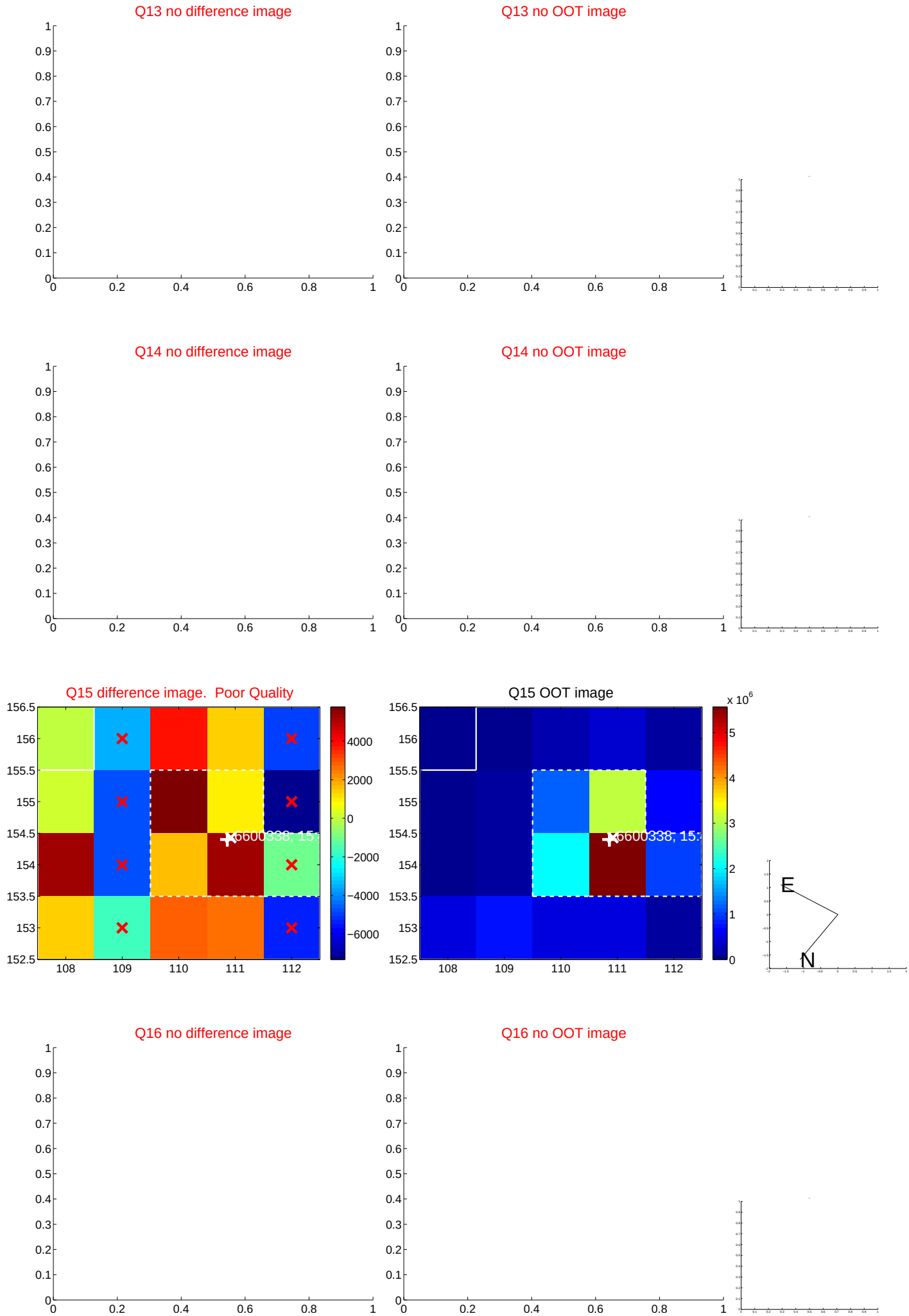




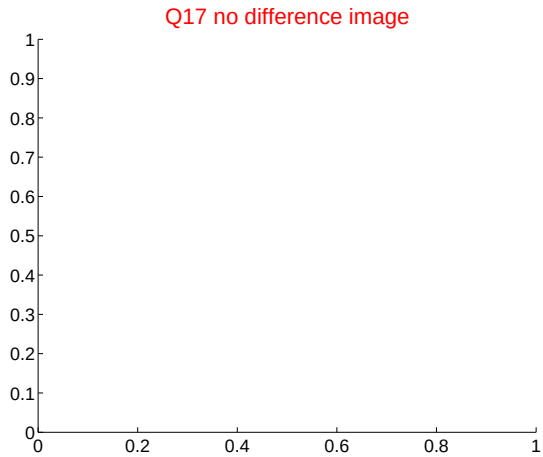


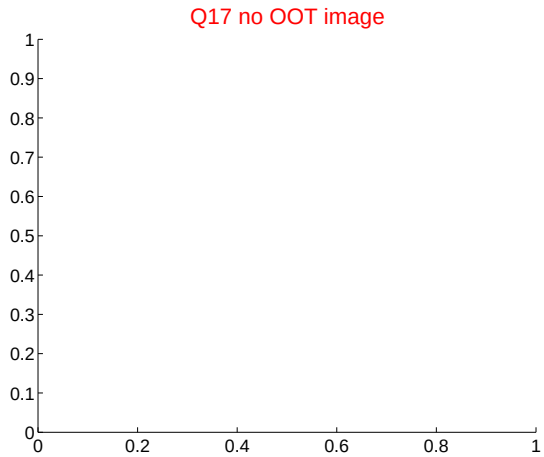


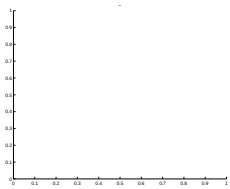
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

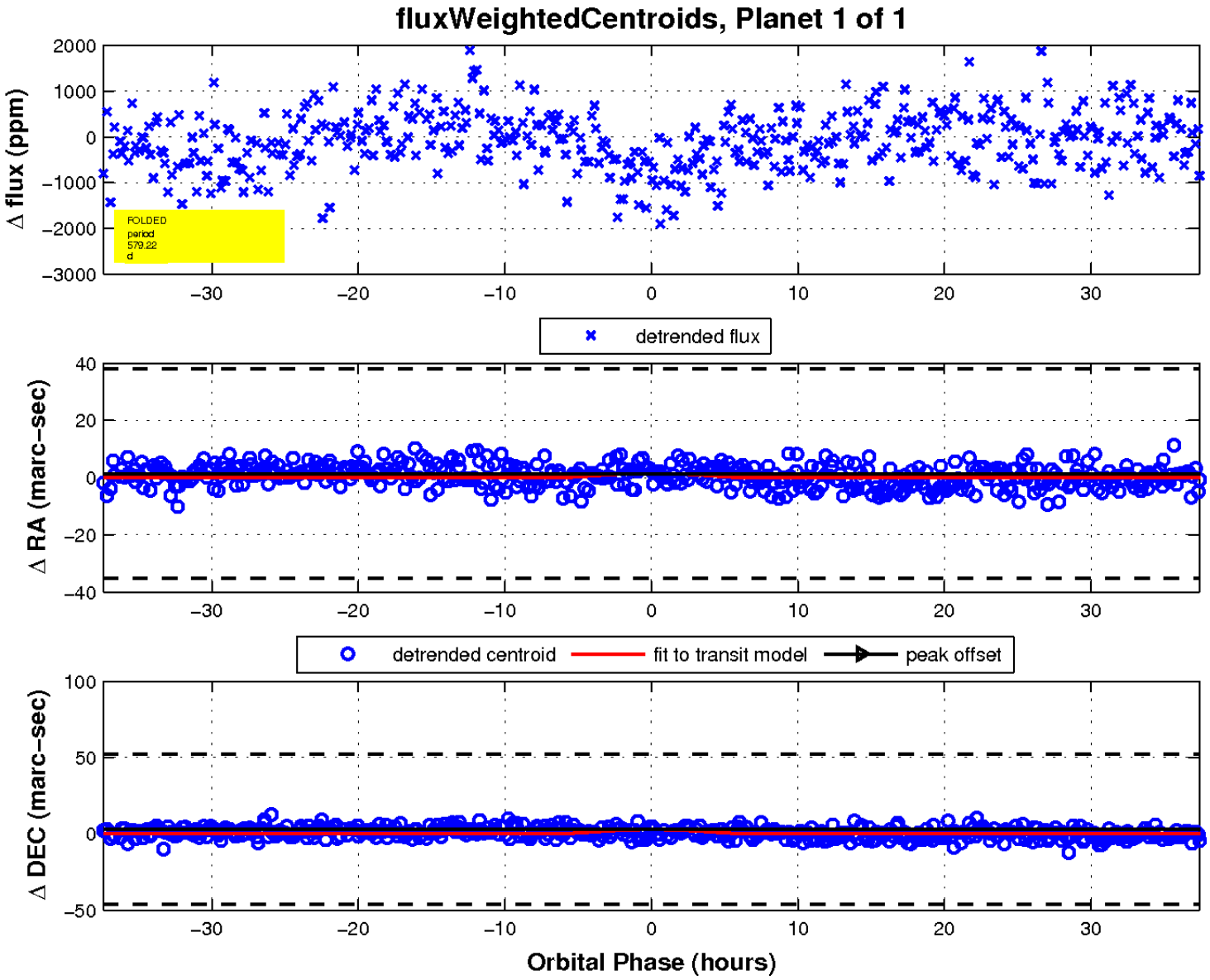


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

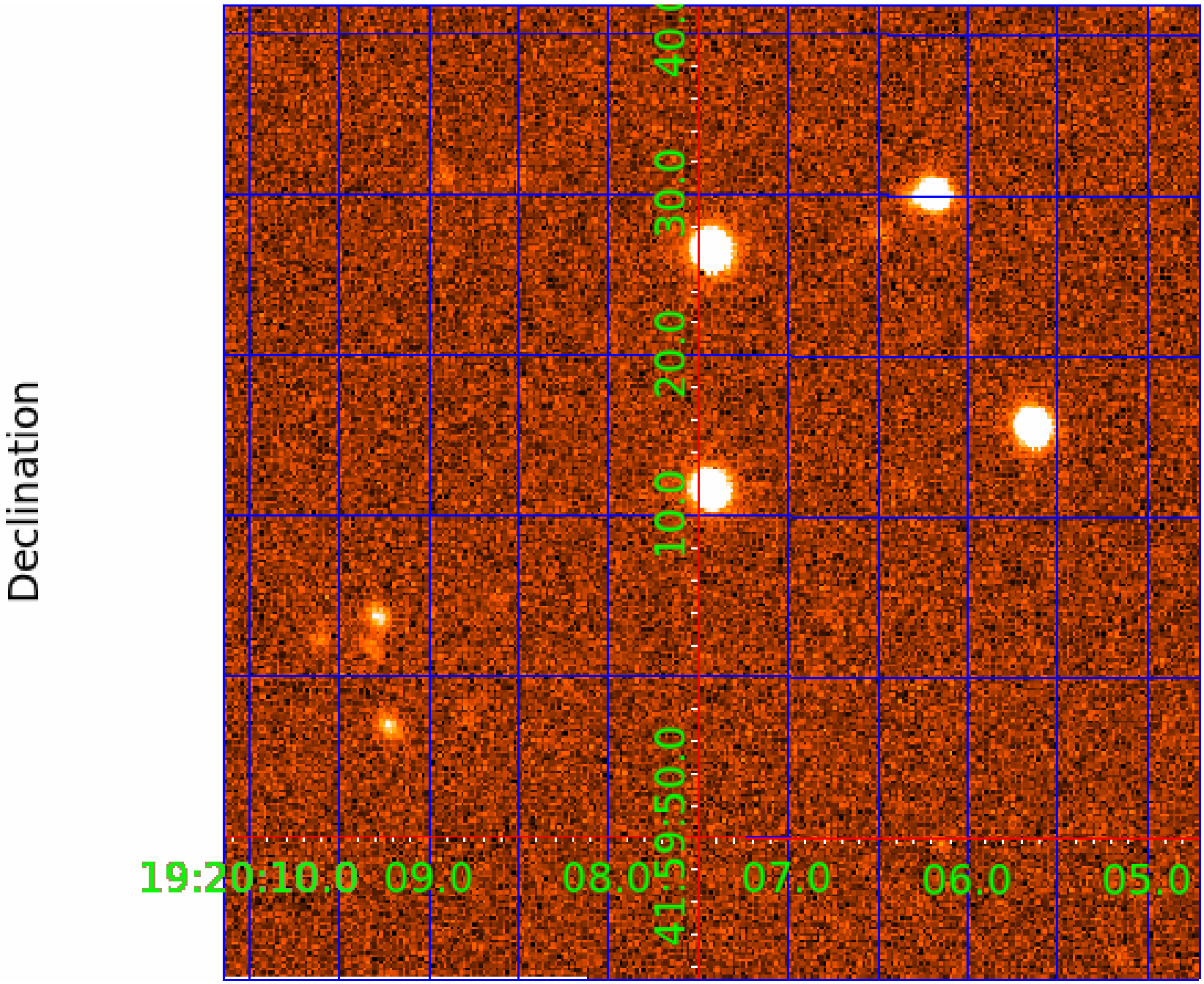








UKIRT Image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