KIC 006585979

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 ($S_\oplus$)
006585979-01	OBS	No	173.651081	203.004873	31.6	6.312	11.1	3.0	163.04	3637	121.67	4910.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006585979-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

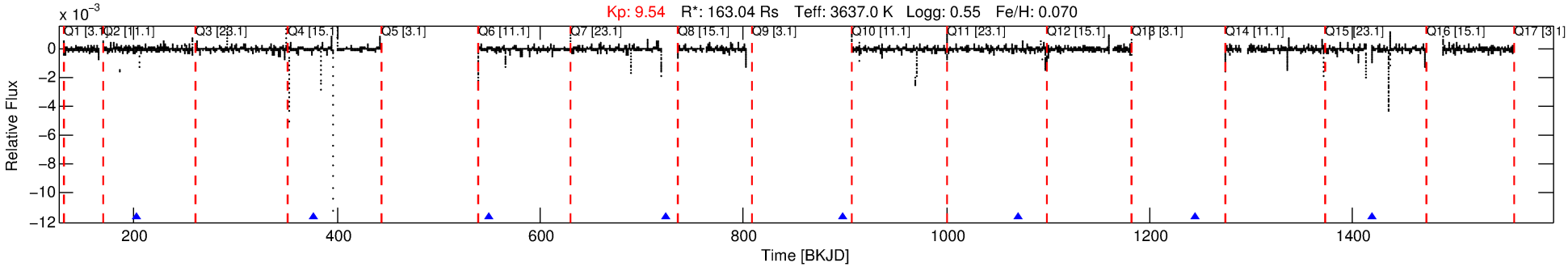
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

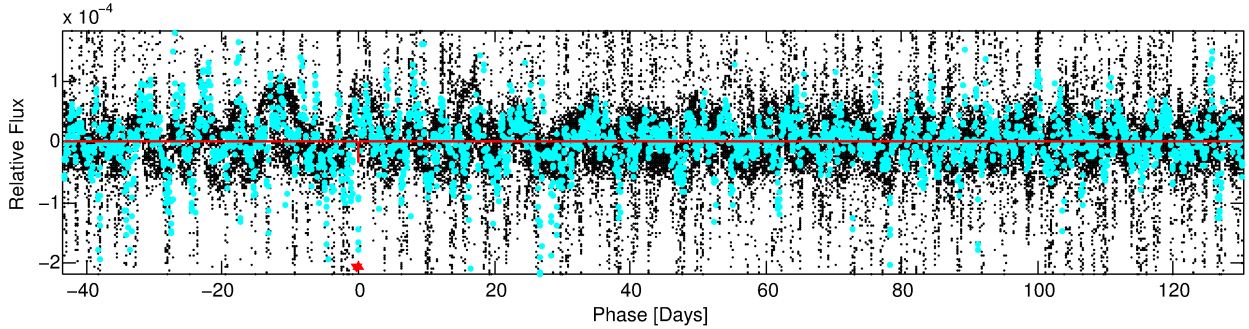
Ephemeris Match Information For 006585979-01

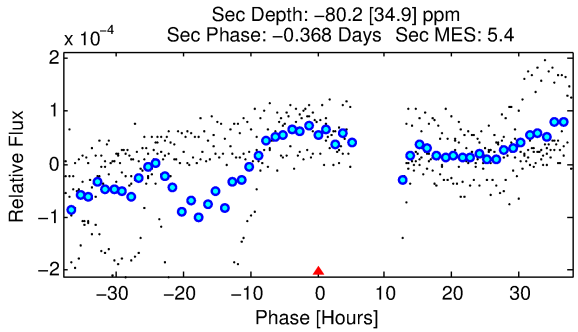
No Significant Match Found

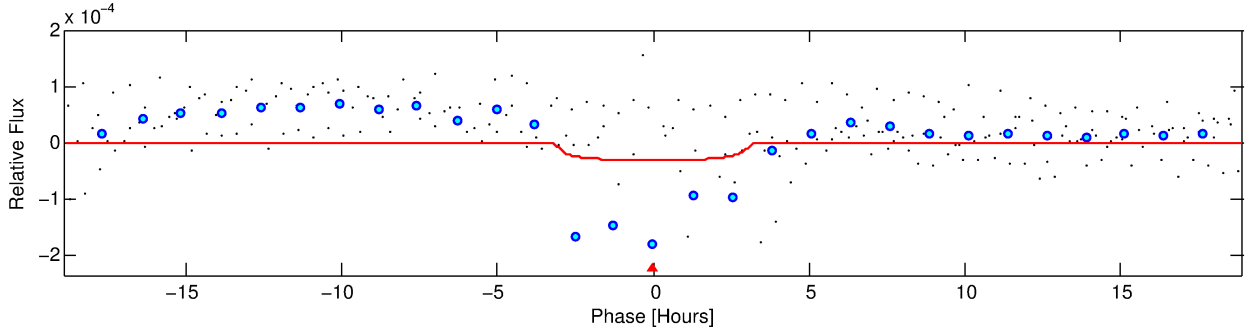
DV One-Page Summary

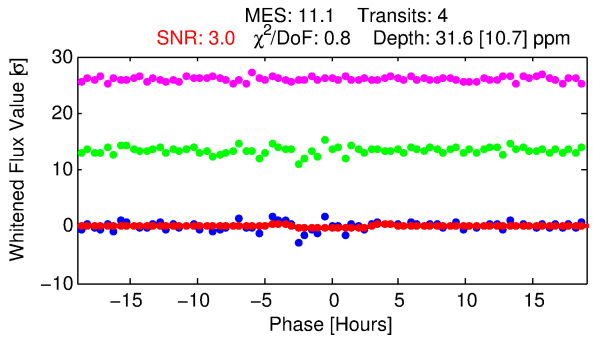
KIC: 6585979 Candidate: 1 of 1 Period: 173.651 d

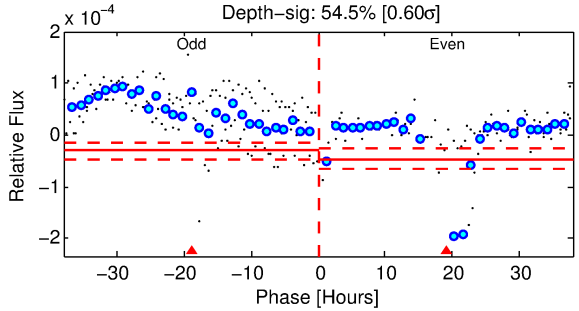


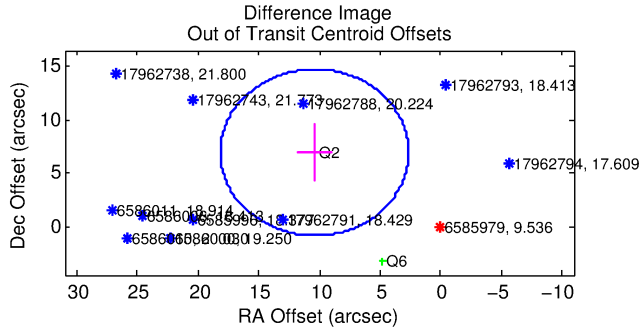












DV Fit Results:

Period = 173.65108 [0.00497] d
Epoch = 203.0049 [0.0146] BKJD
Rp/R* = 0.0068 [0.0046]
a/R* = 84.81 [188.52]
b = 0.92 [0.37]

Seff = 4910.97 [3411.68]
Teq = 2135 [371] K
Rp = 121.67 [110.45] Re
a = 0.9212 [0.4521] AU

Ag = N/A
Teffp = N/A

DV Diagnostic Results:

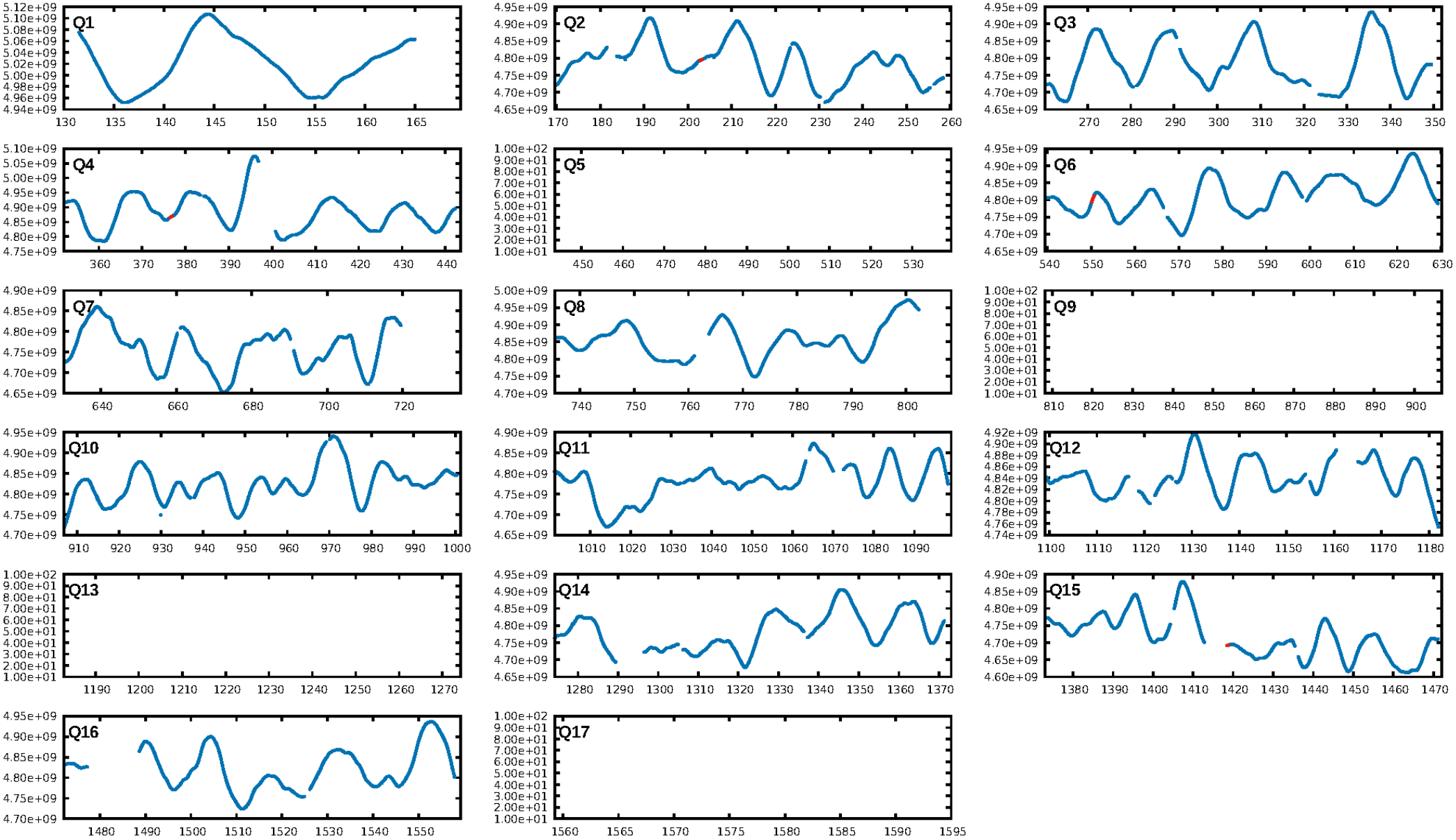
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: 16.1%
ModelChiSquareGof−sig: 99.8%
Bootstrap−pfa: 1.33e−04
RollingBand−fgt: 1.00 [4/4]
GhostDiagnostic−chr: N/A

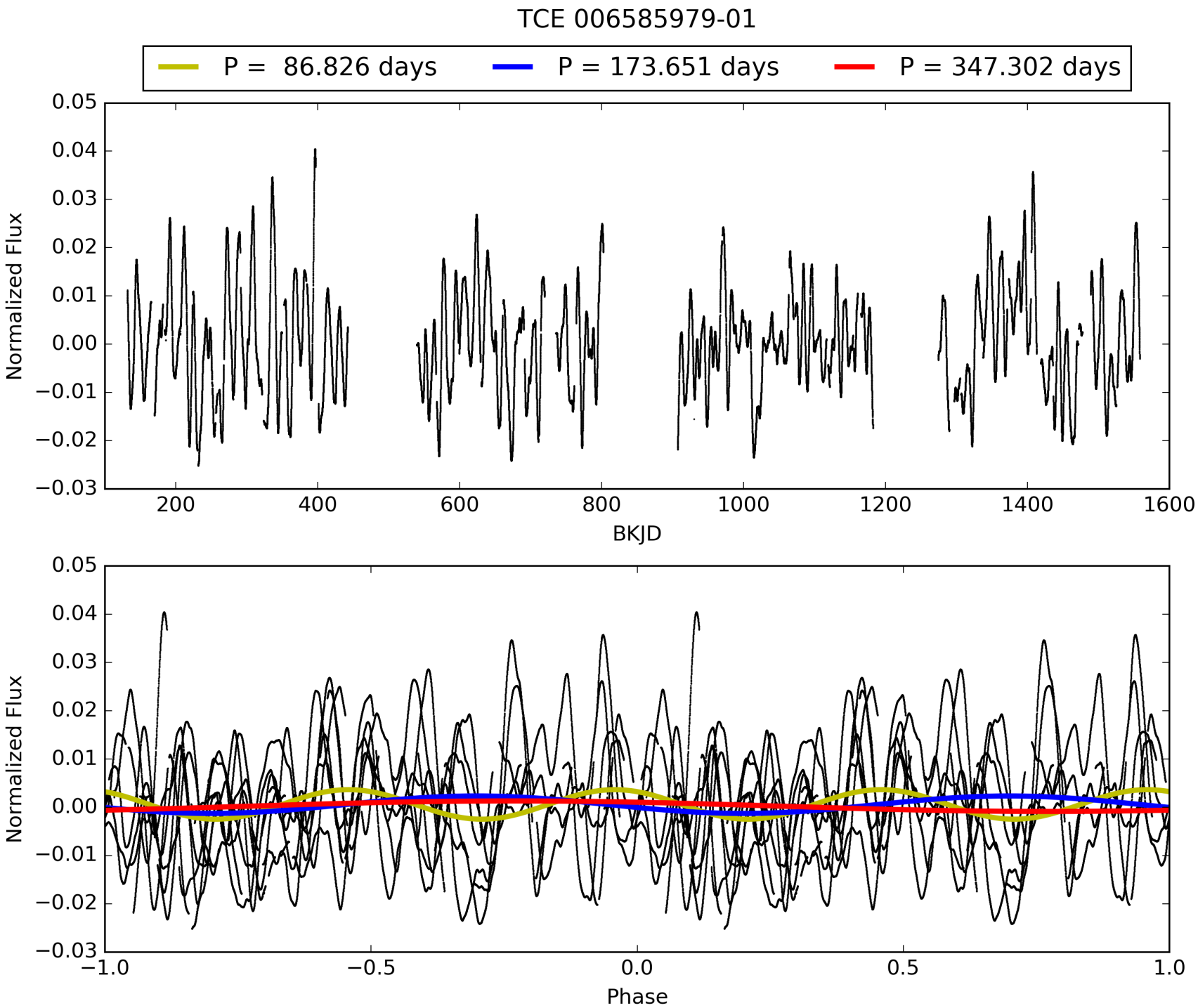
Centroid−sig: 56.0%
Centroid−so: 21.846 arcsec [0.79σ]
OotOffset−rm: 12.515 arcsec [4.83σ]
KicOffset−rm: 10.607 arcsec [3.47σ]
OotOffset−st: 2/0/0/0 [2]
KicOffset−st: 2/0/0/0 [2]
DiffImageQuality−fgm: 0.00 [0/2]
DiffImageOverlap−fno: 1.00 [3/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01−Feb−2016 20:29:03 Z

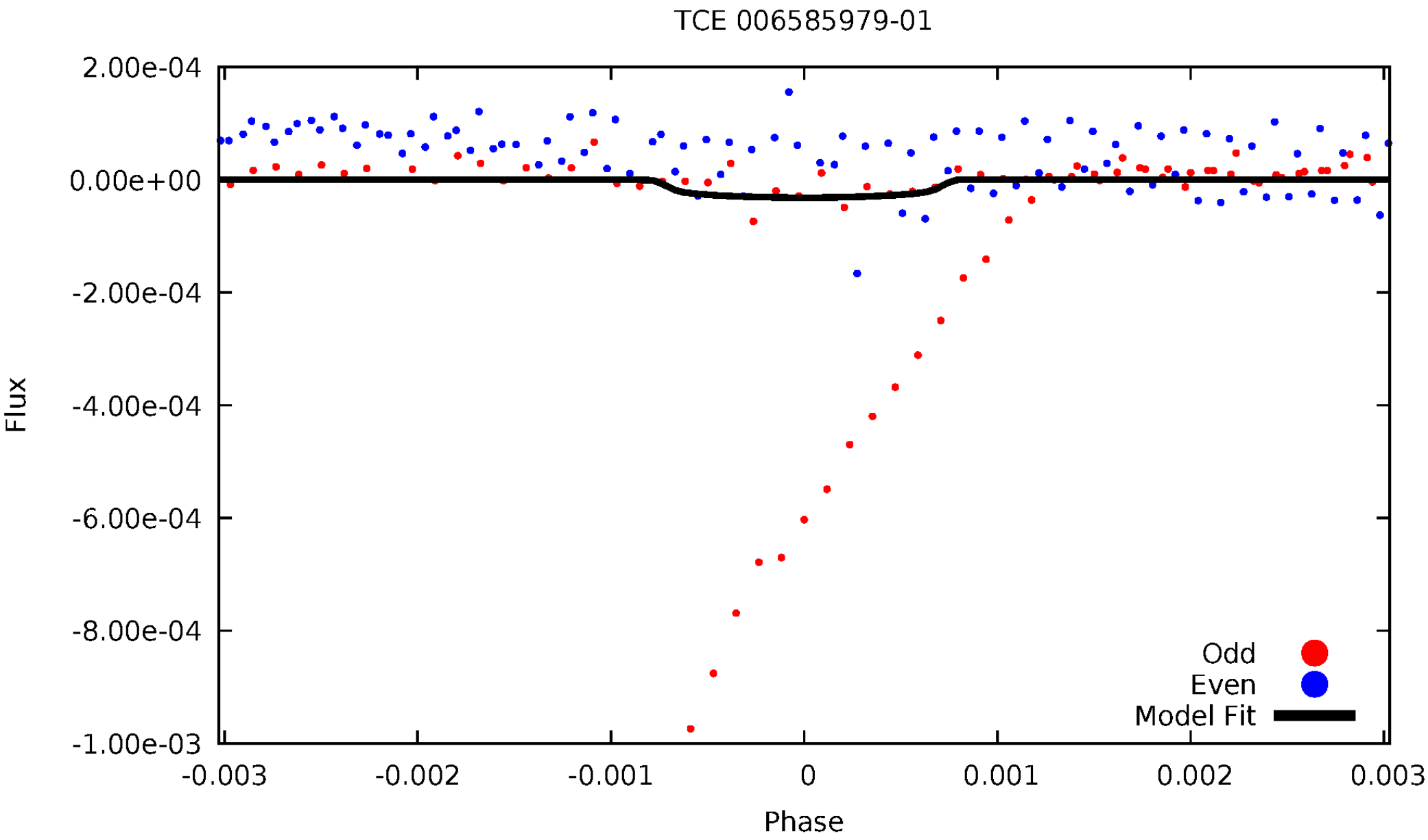
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006585979-01, PDC Light Curves

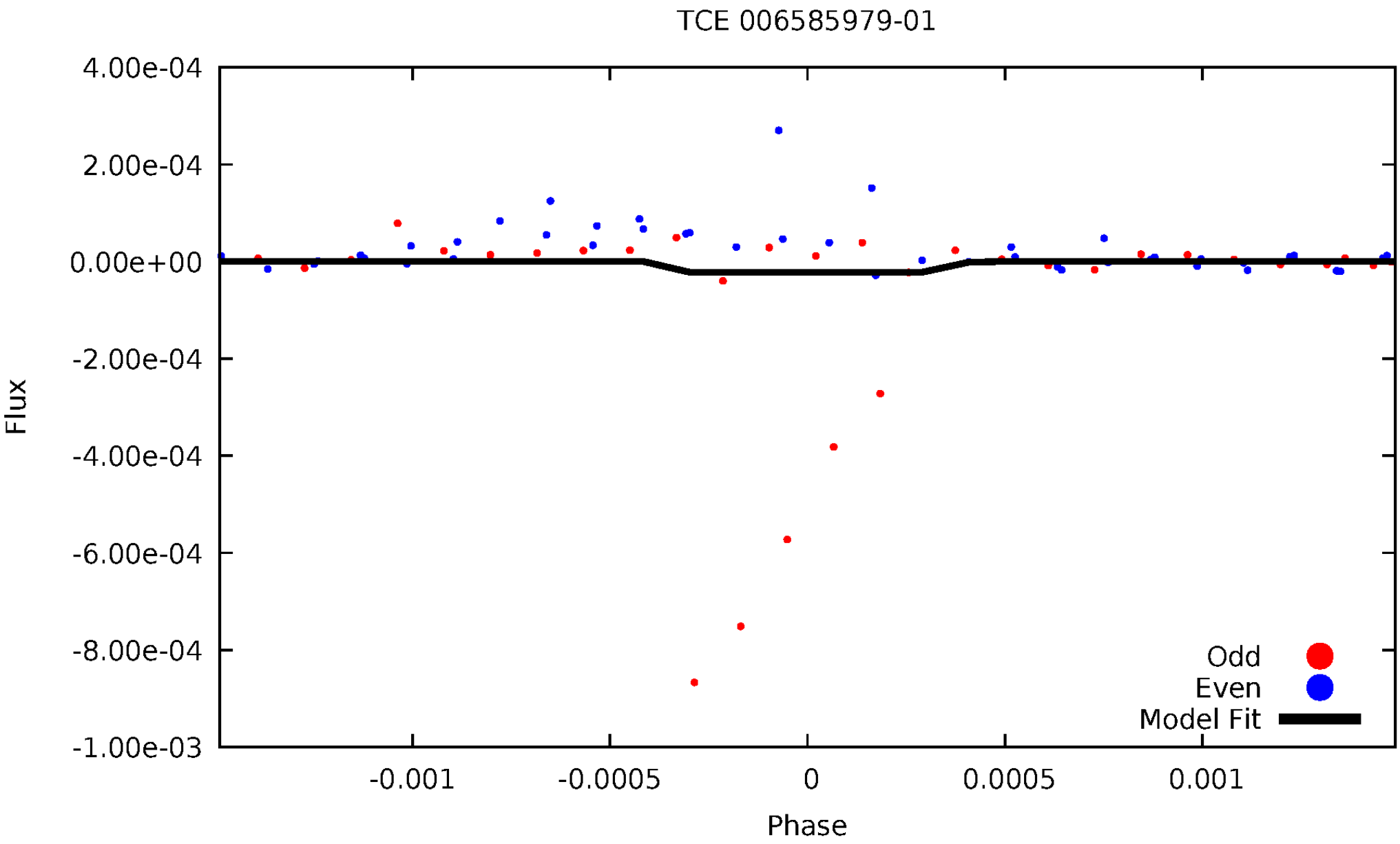



TCE 006585979-01
P = 86.826 days
P = 173.651 days
P = 347.302 days
Normalized Flux
BKJD
Normalized Flux
Phase

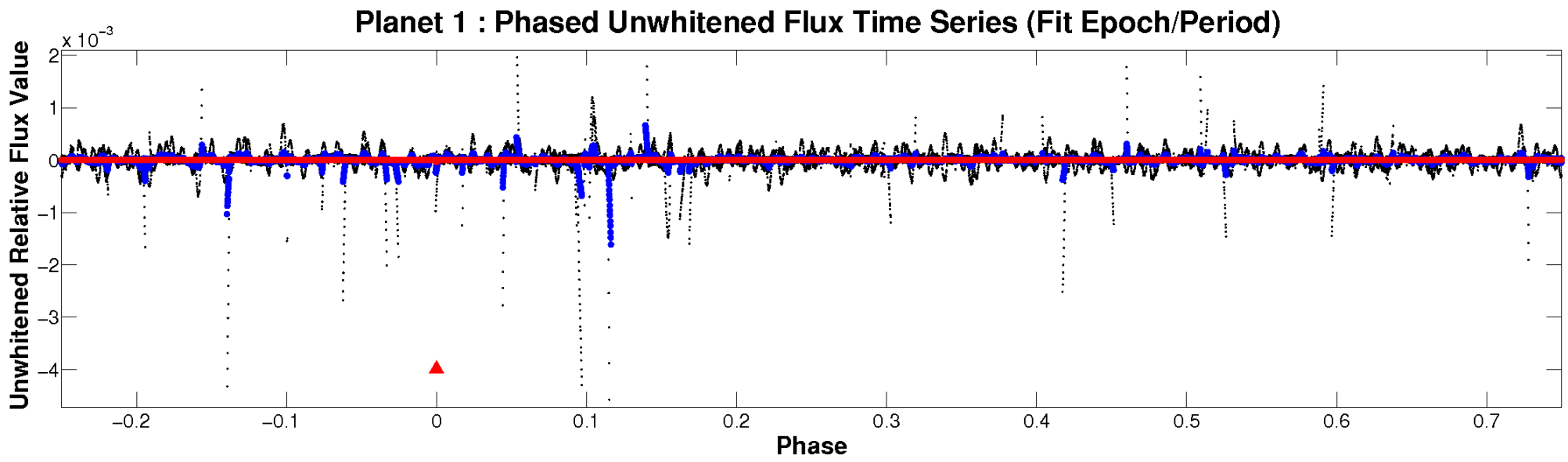
DV Odd/Even

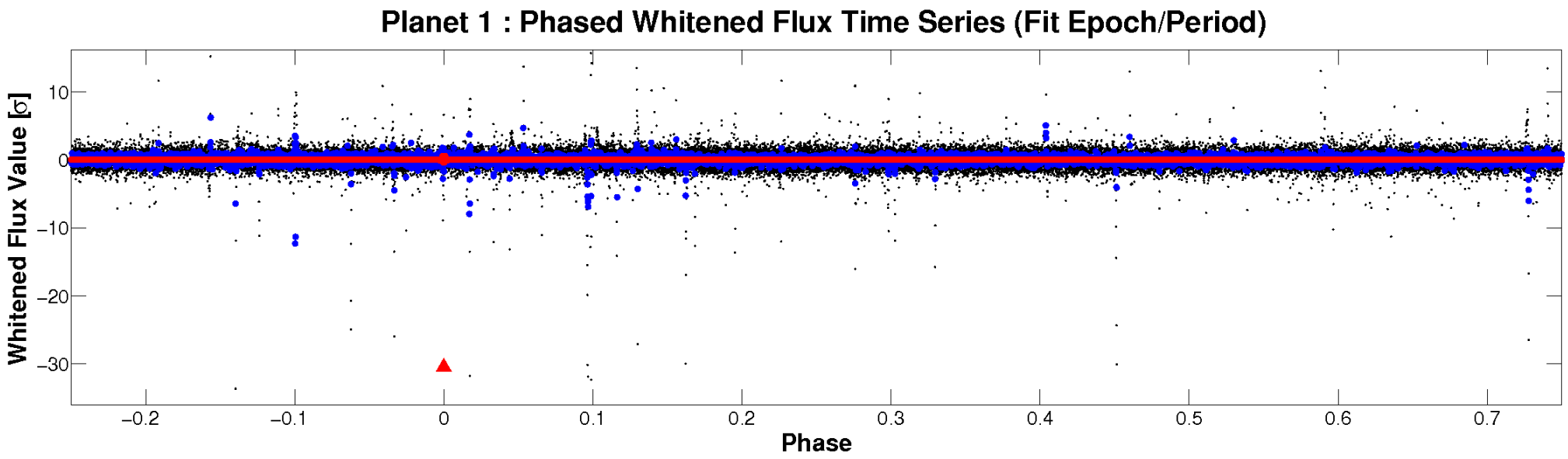

TCE 006585979-01
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
-1.00e-03
Flux
-0.003
-0.002
-0.001
0
0.001
0.002
0.003
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006585979-01
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
-1.00e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

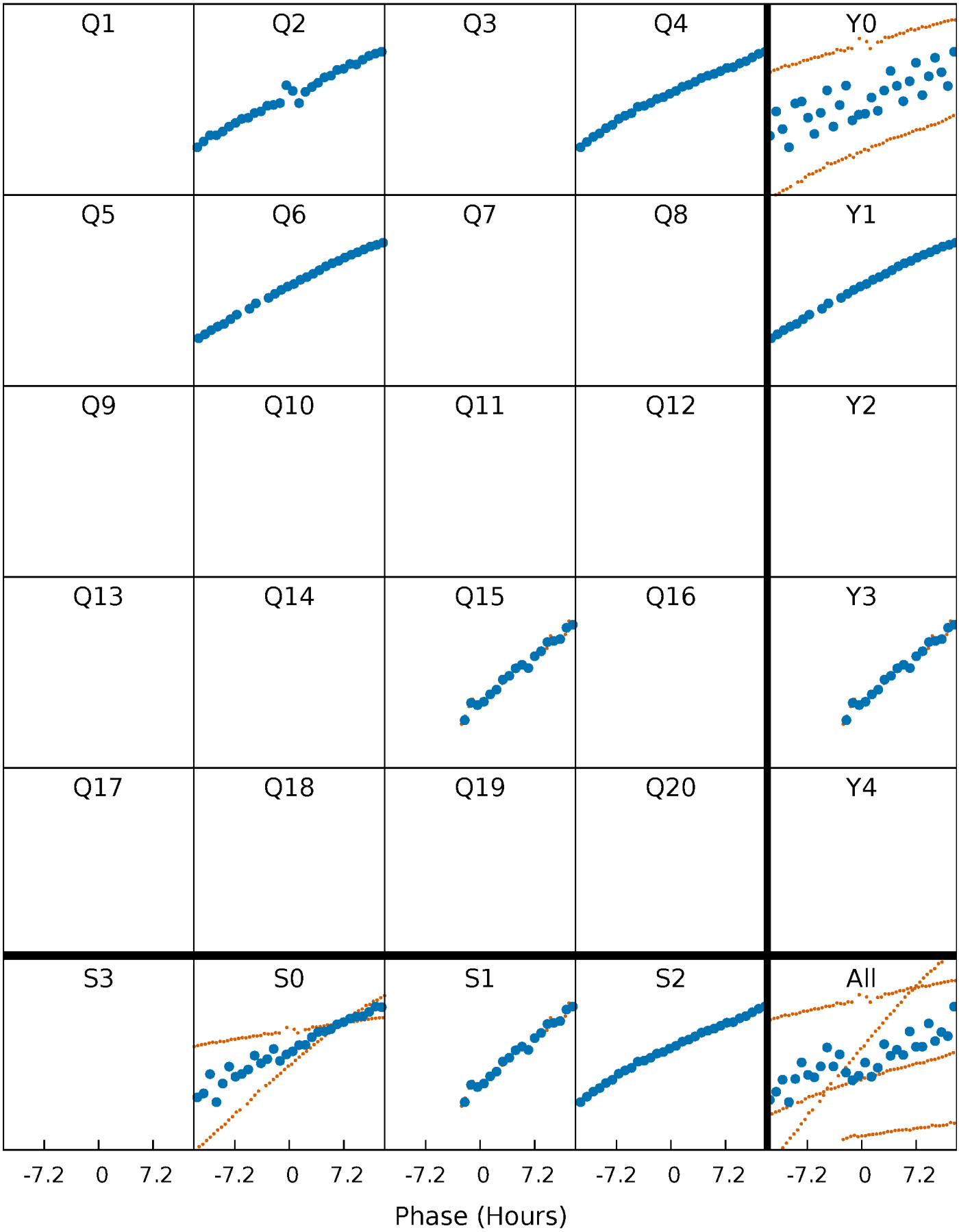
Non-Whitened Vs. Whitened Light Curve





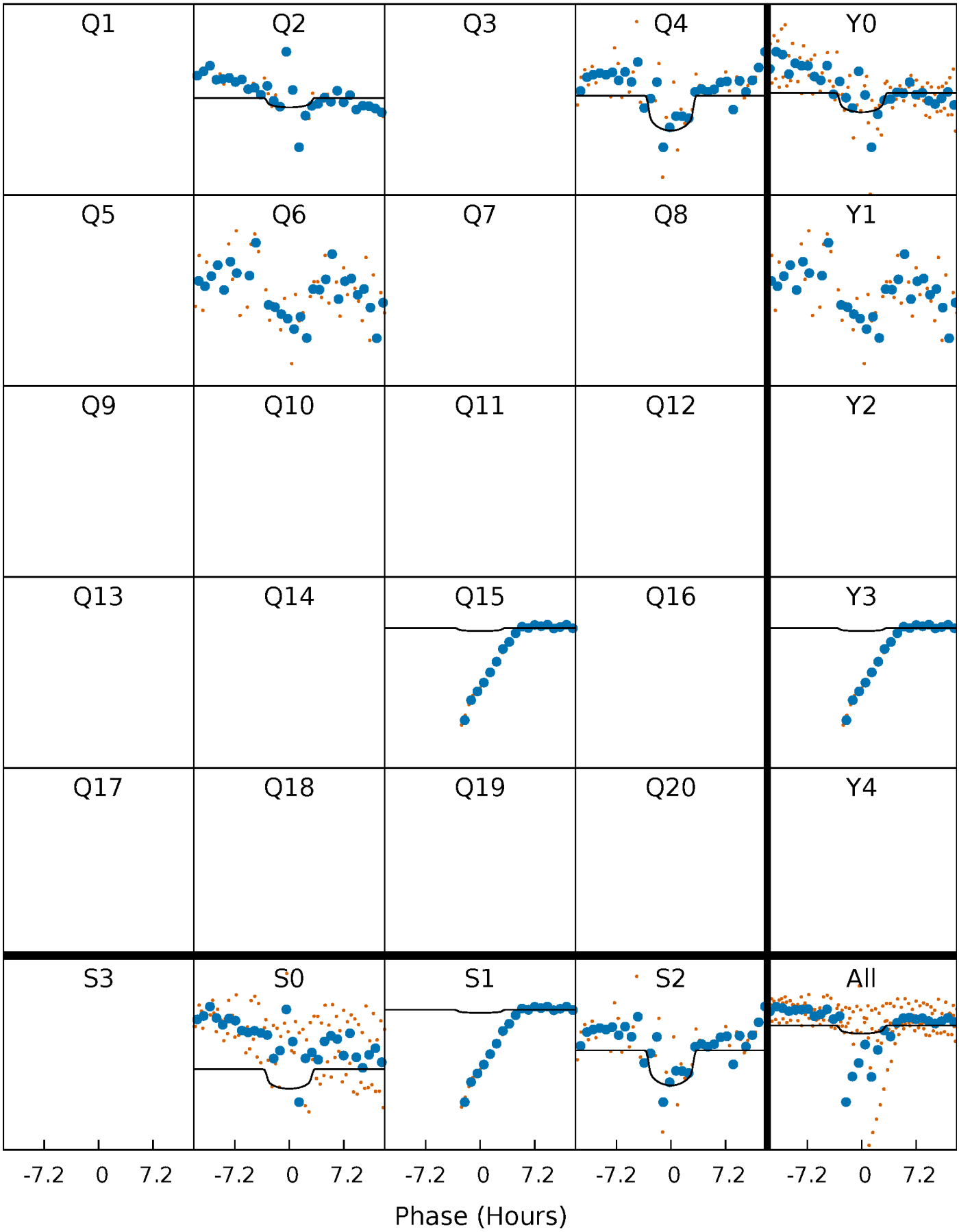
PDC Quarter-Phased Transit Curves

TCE 006585979-01 P=173.651081 Days T_0=203.004873 (BKJD)



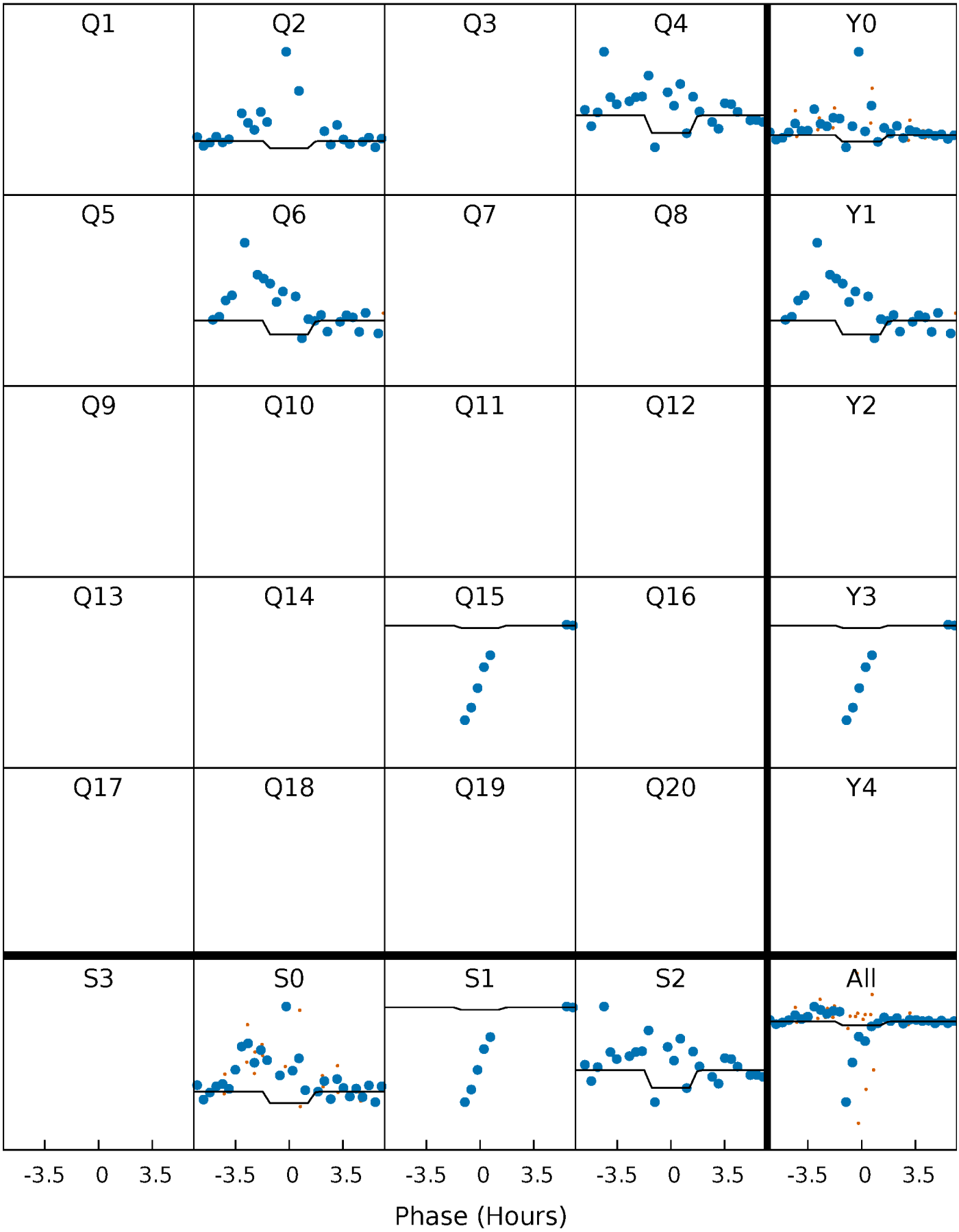
DV Quarter-Phased Transit Curves

TCE 006585979-01 P=173.651081 Days T_0=203.004873 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

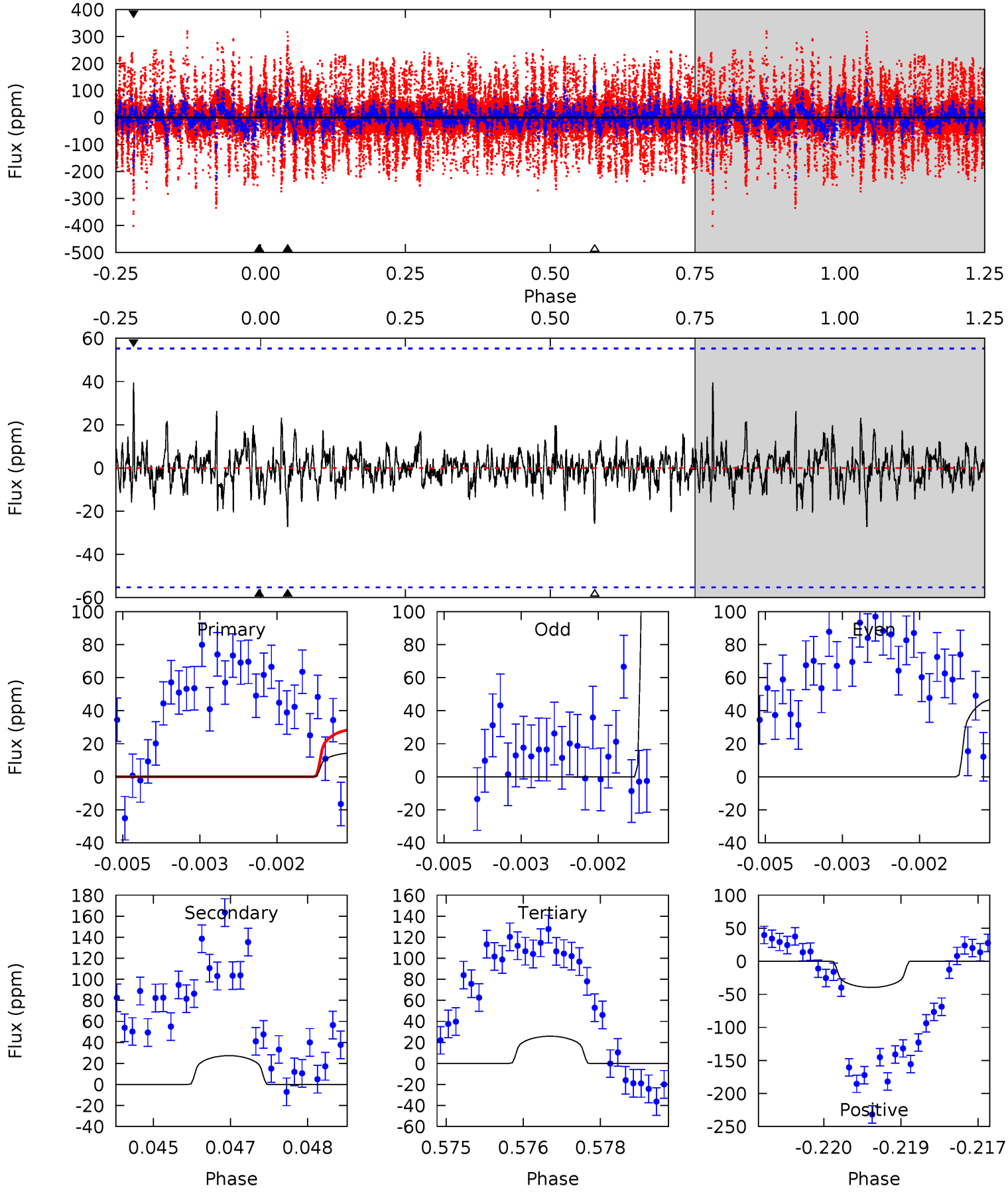
TCE 006585979-01 P=173.643768 Days T_0=203.003684 (BKJD)



DV Model-Shift Uniqueness Test

006585979-01, P = 173.651081 Days, E = 29.353792 Days

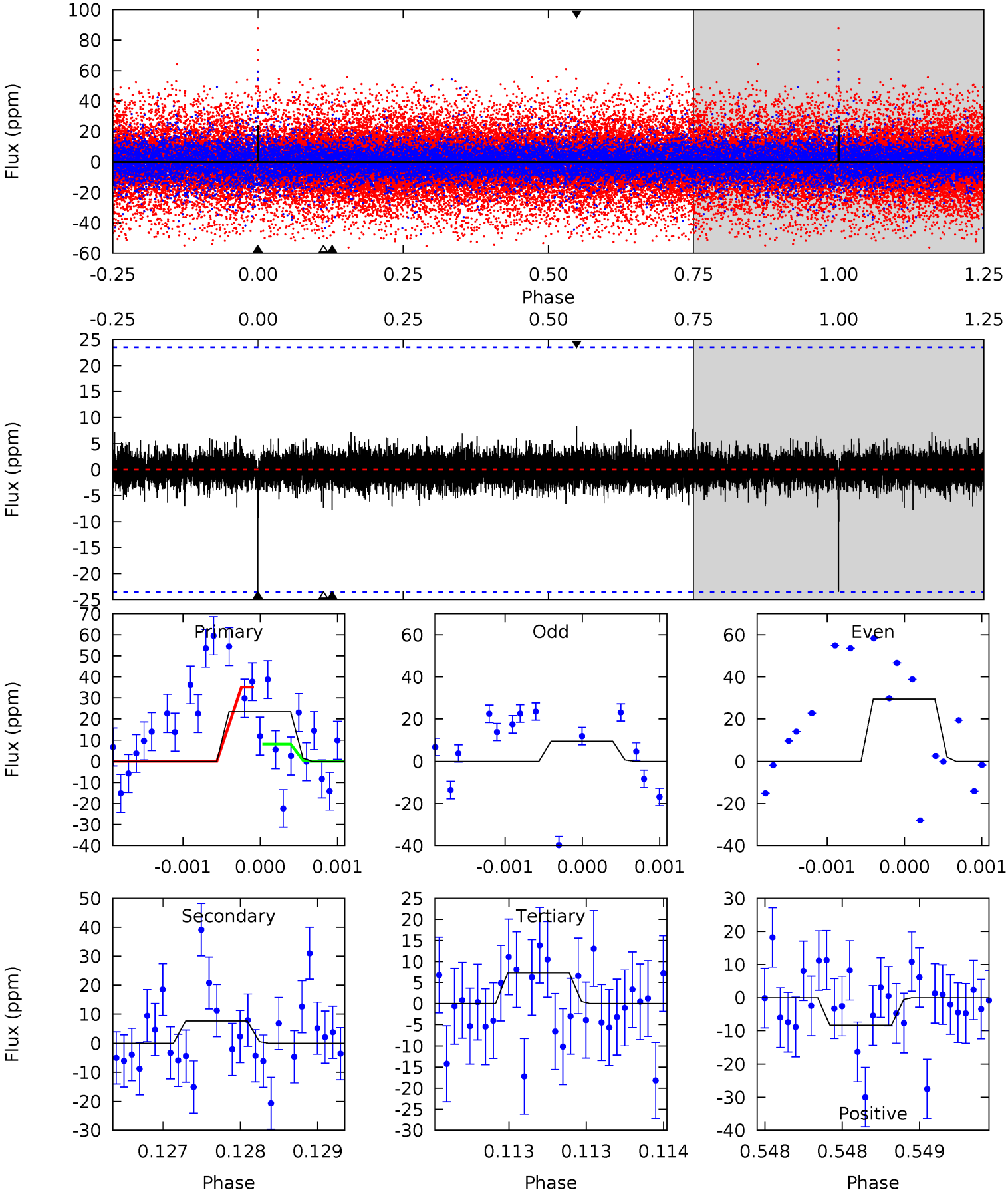
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.40	2.65	2.50	3.83	5.37	3.15	0.59	-1.10	-2.44	0.15	-1.18	11.8	8.84	0.59	1.35



Alt Model-Shift Uniqueness Test

006585979-01, P = 173.643768 Days, E = 29.359916 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.50	1.80	1.70	1.94	5.50	3.37	0.41	3.80	3.56	0.10	-0.15	2.06	-5.15	0.26	0



Stellar Parameters For KIC 006585979

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	3637^{+79}_{-79}	$0.552^{+0.364}_{-0.156}$	$0.070^{+0.200}_{-0.300}$	$163.044^{+23.222}_{-98.695}$	$3.455^{+0.236}_{-2.363}$	$0.000^{+0.000}_{-0.000}$
	+2%/-2%	+66%/-28%	+286%/-429%	+14%/-61%	+7%/-68%	+434%/-26%
Source	SPE14	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006585979-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-27±10	$121.84^{+77.30}_{-68.06}$	2976^{+176}_{-305}	2990^{+1083}_{-5168}	$0.770^{+2.951}_{-0.501}$
Alt.	-8±4	$90.53^{+73.08}_{-58.82}$	2998^{+158}_{-344}	2360^{+1696}_{-5135}	$0.375^{+3.039}_{-0.299}$

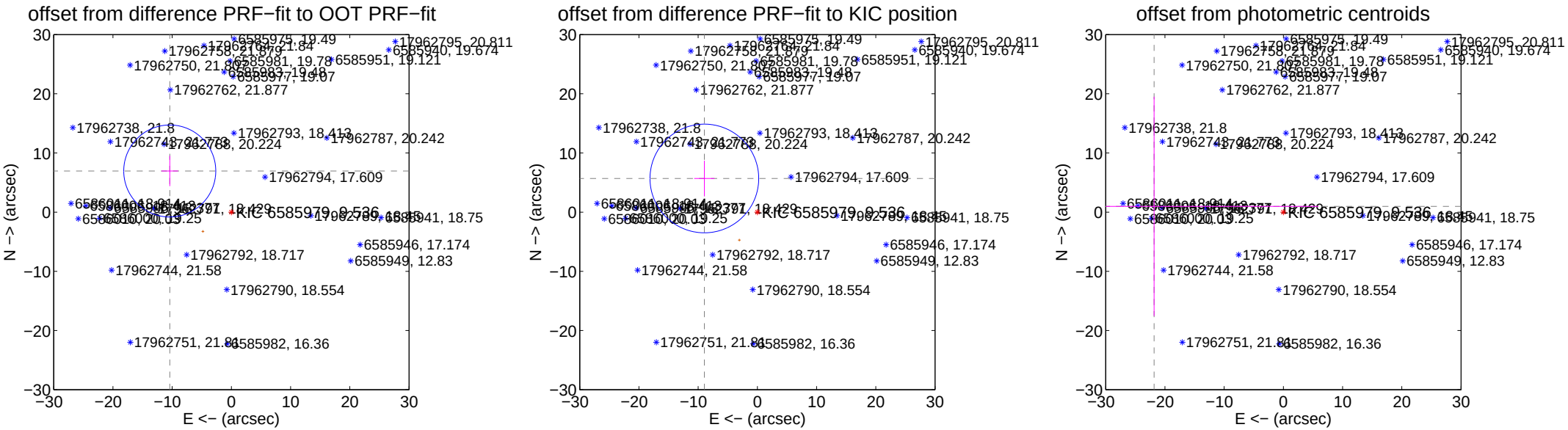
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

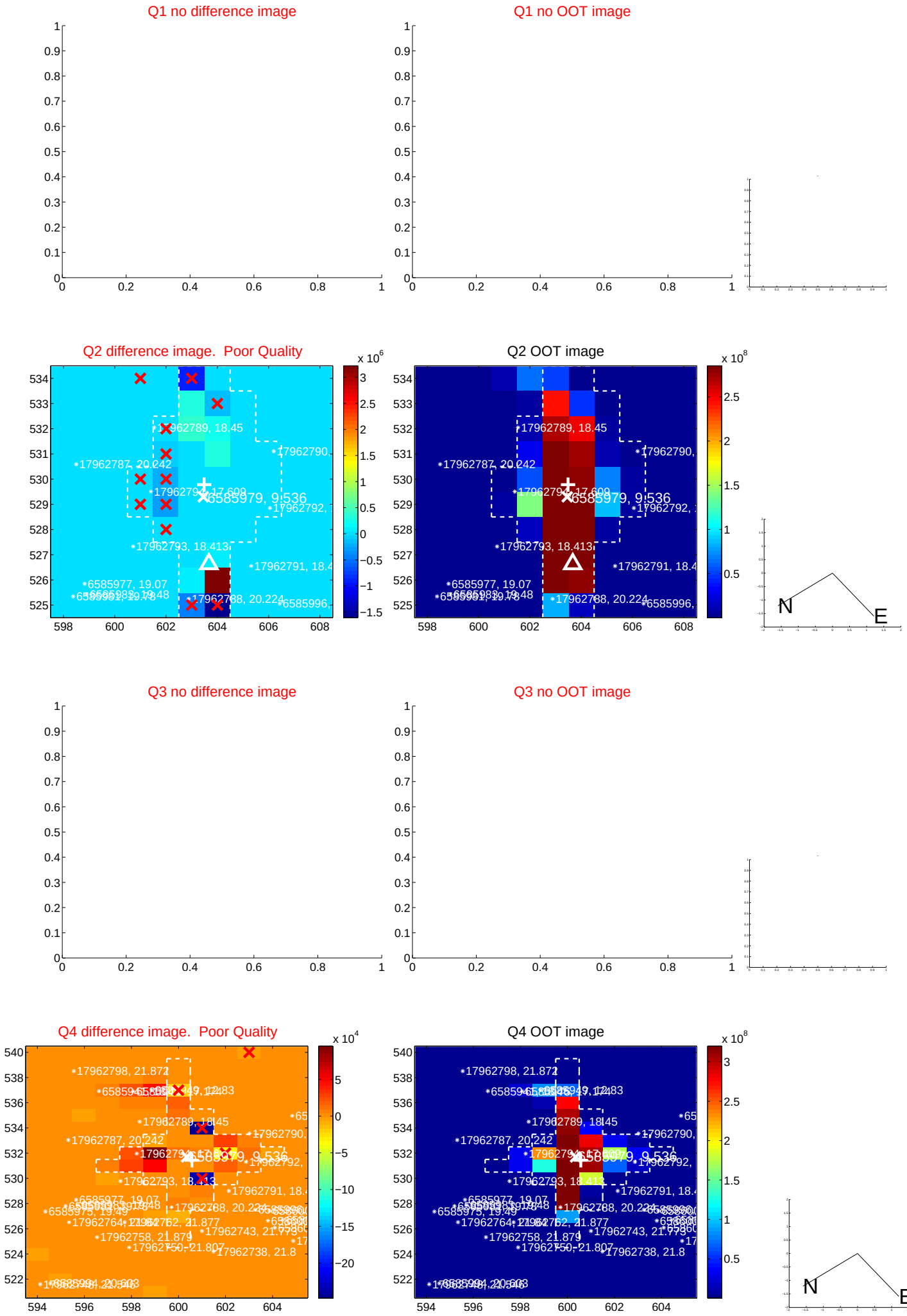
Supplemental centroid analysis for 006585979-01. Kepler magnitude: 9.54. Transit SNR 2.96
There are 0 quarters with good PRF difference image offsets
The OOT PRF centroid is offset from the target star catalog position by about 2.29 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	12.515 ± 2.590	4.83	10.406 ± 1.406	6.952 ± 2.561
PRF-fit source offset from KIC position	10.607 ± 3.060	3.47	8.953 ± 1.712	5.688 ± 3.013
photometric centroid source offset	21.85 ± 27.74	0.79	21.82 ± 27.75	0.98 ± 18.52

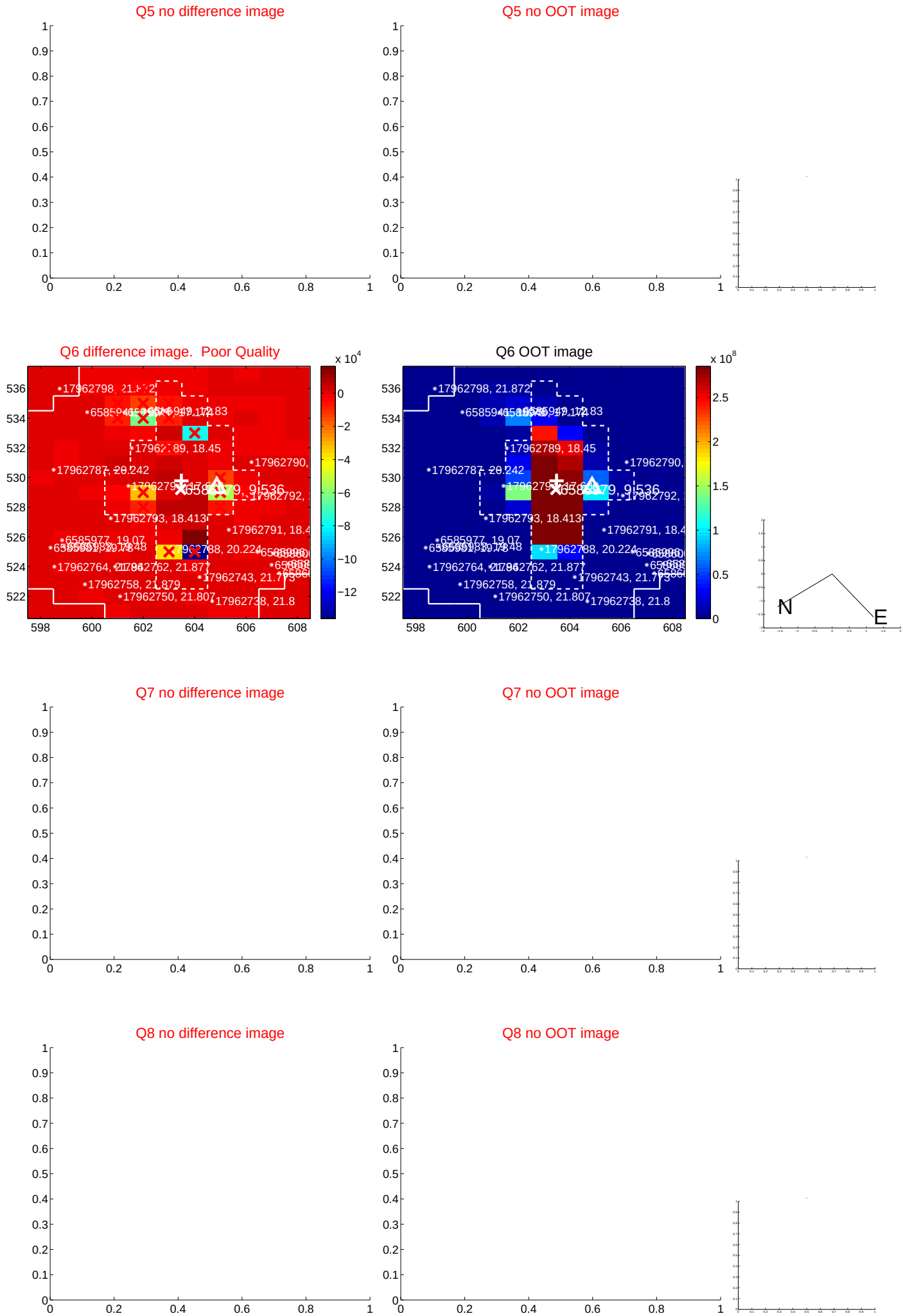


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: 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.

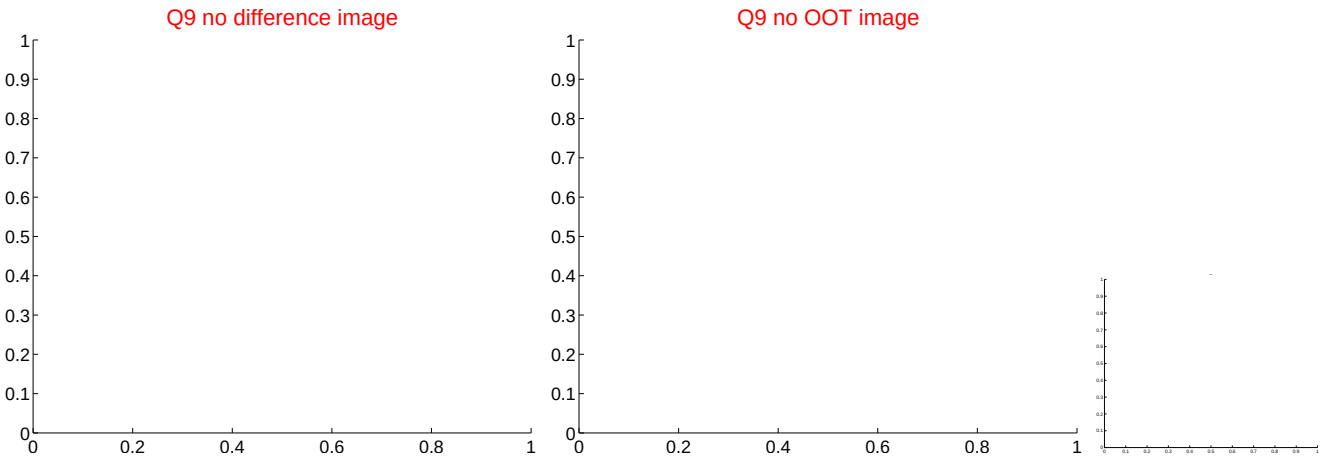
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

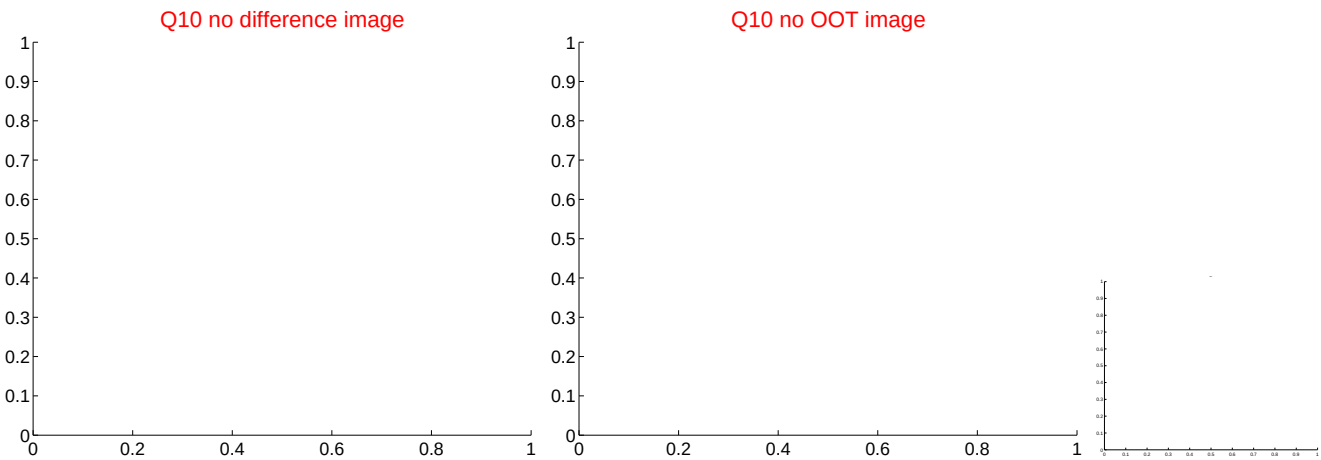


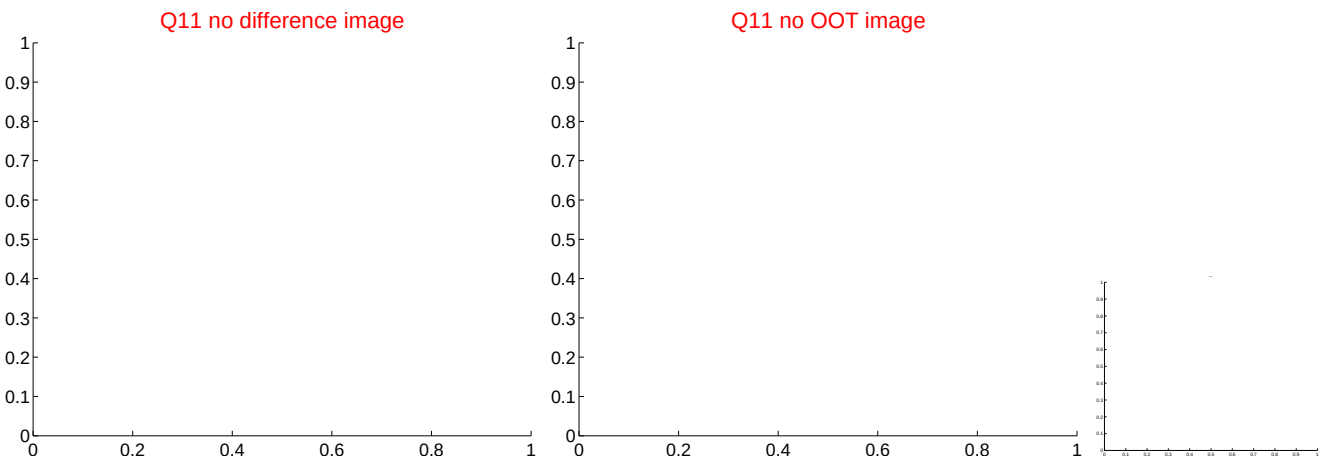
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

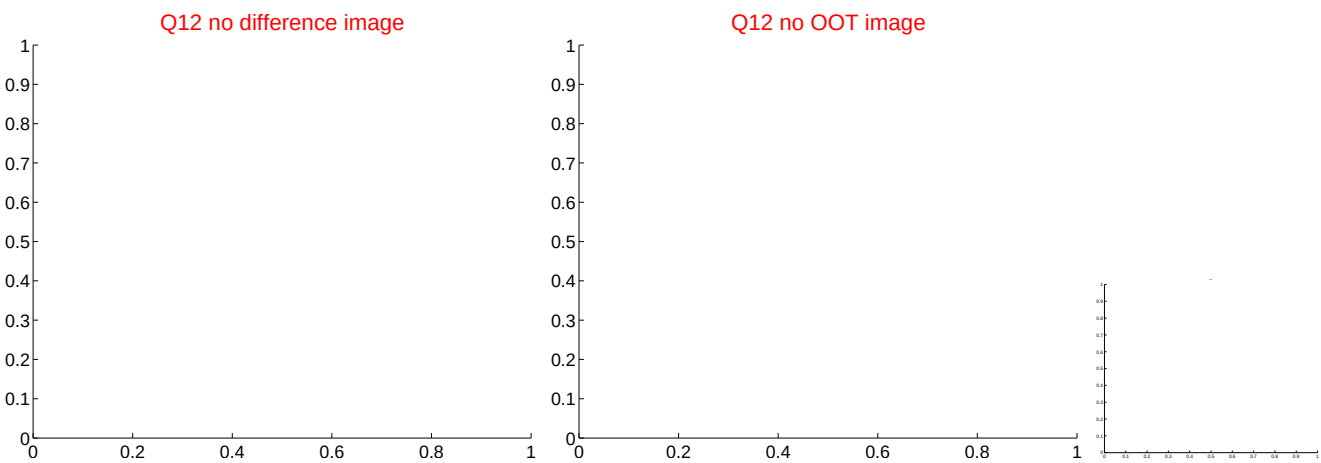


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

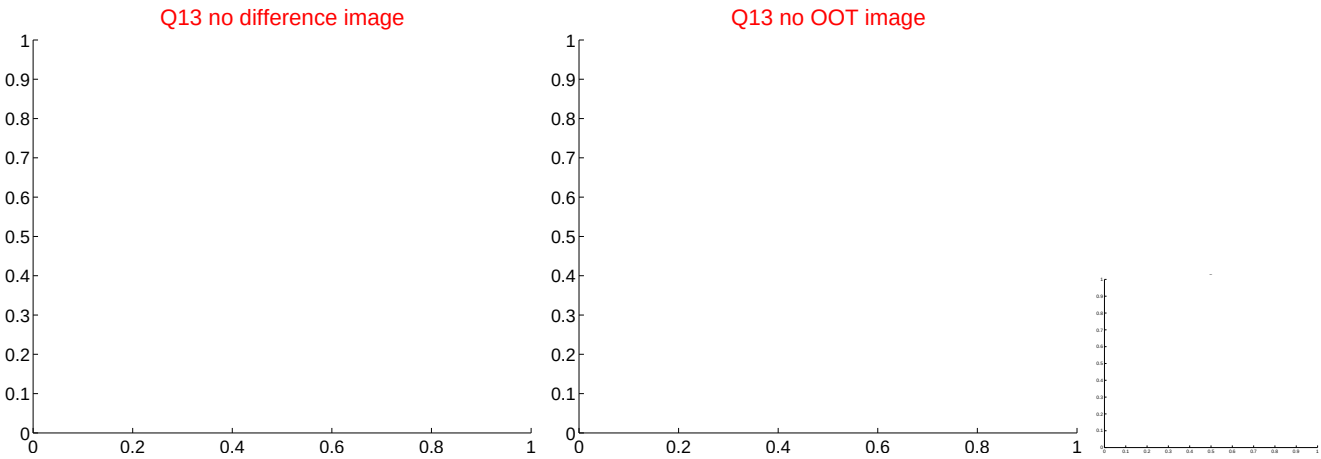


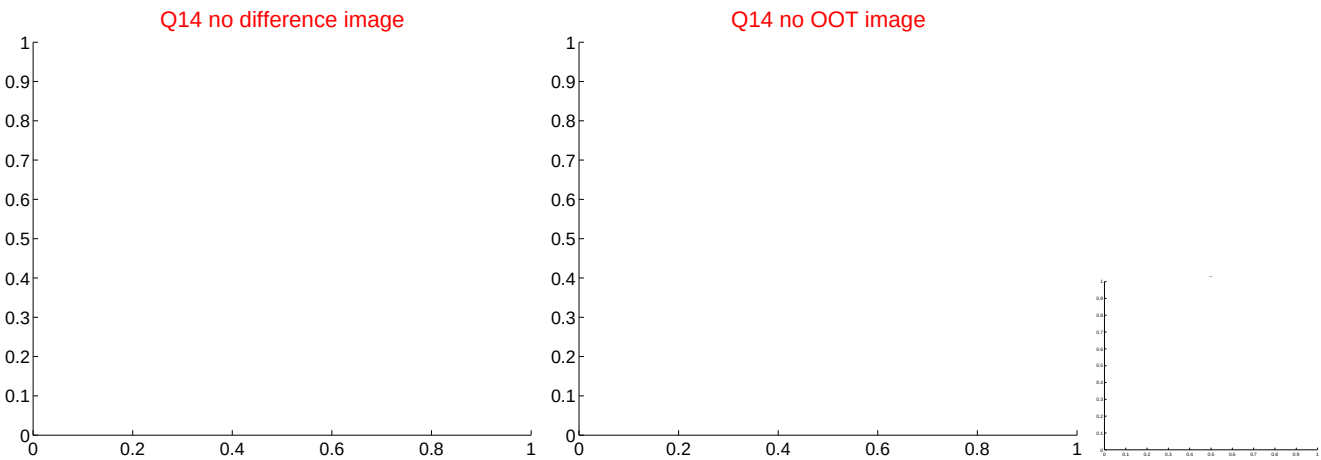


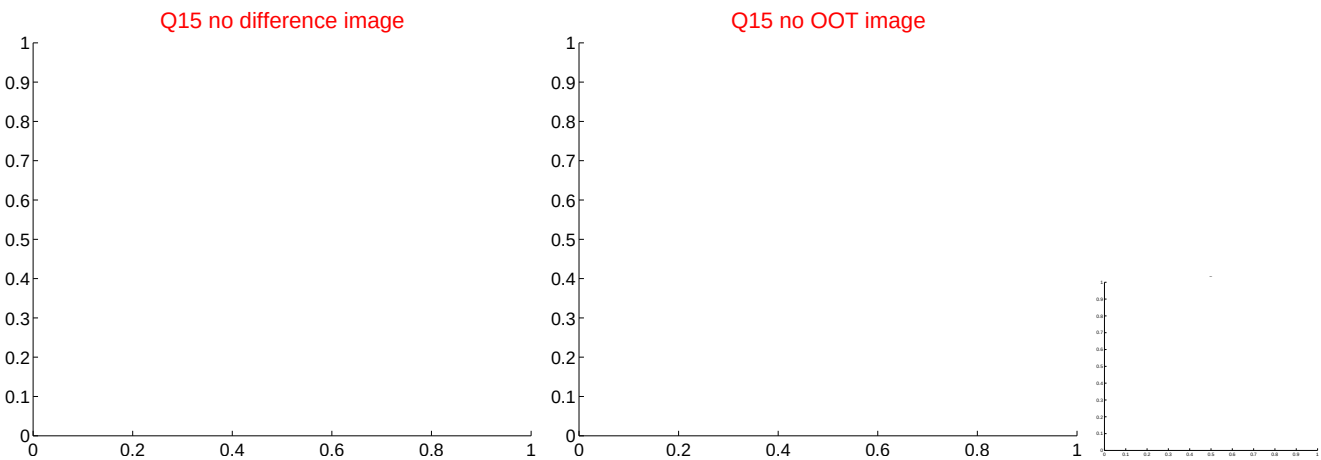


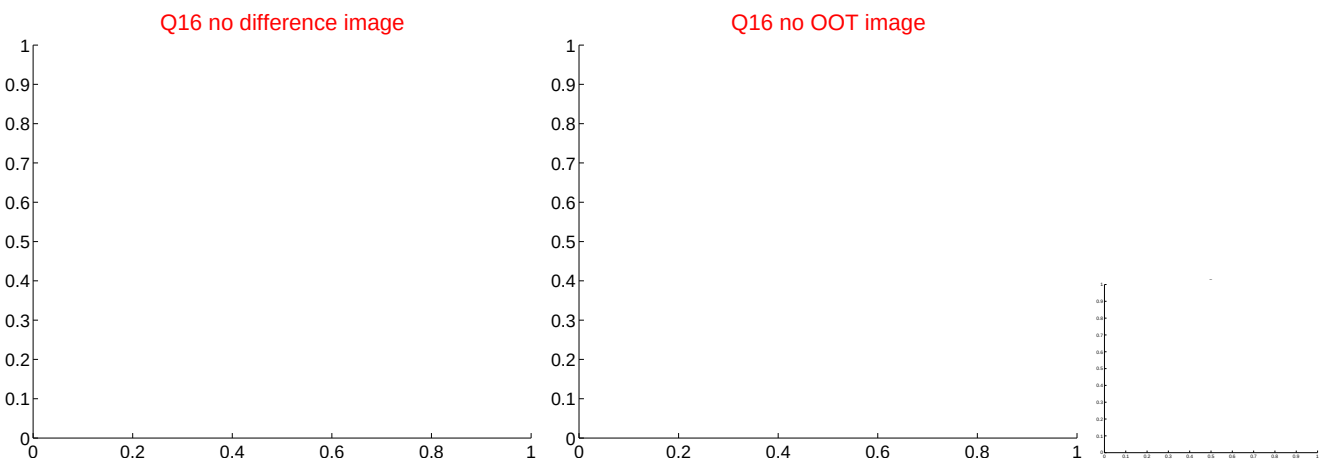


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

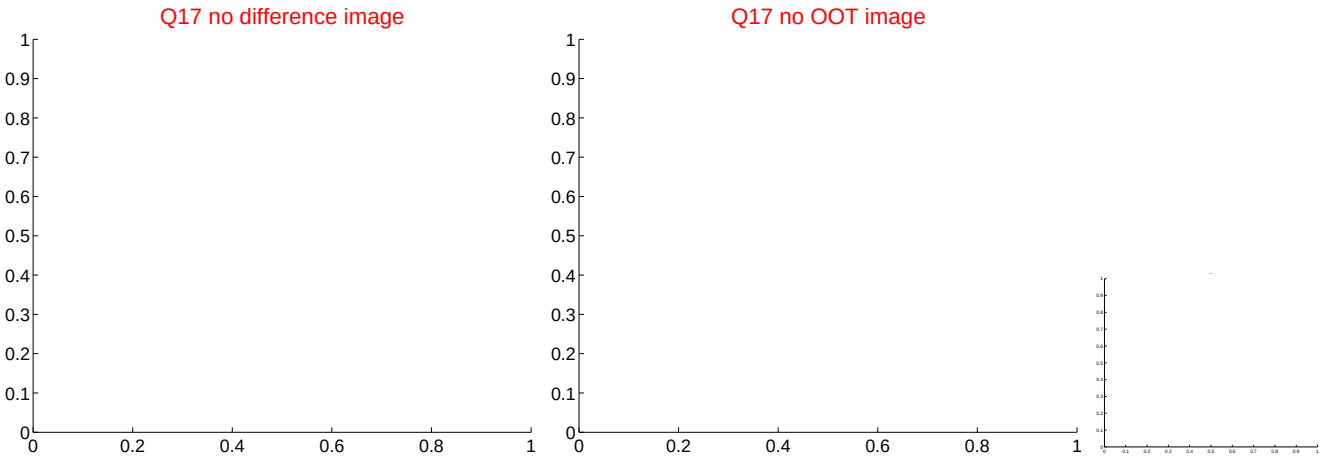


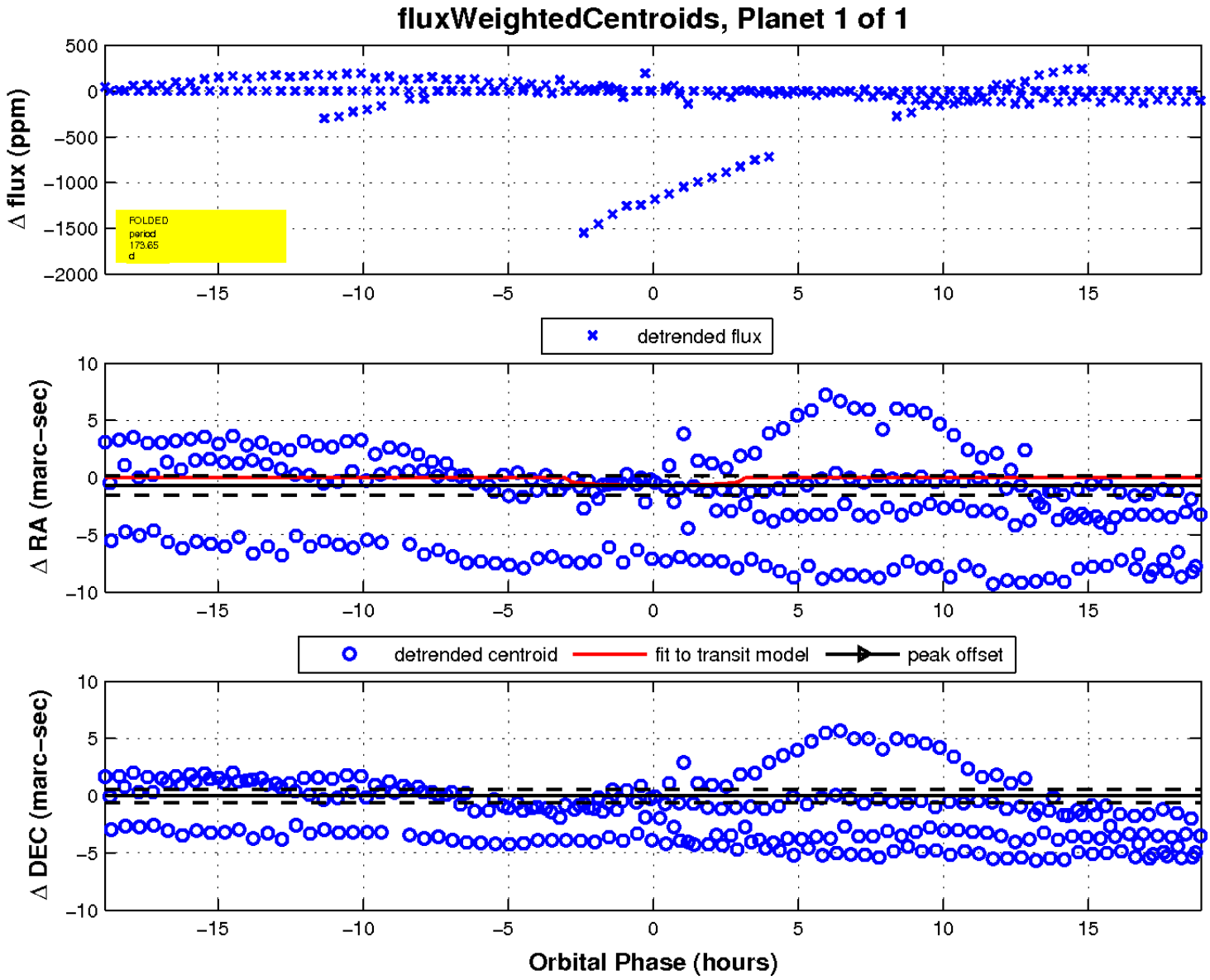
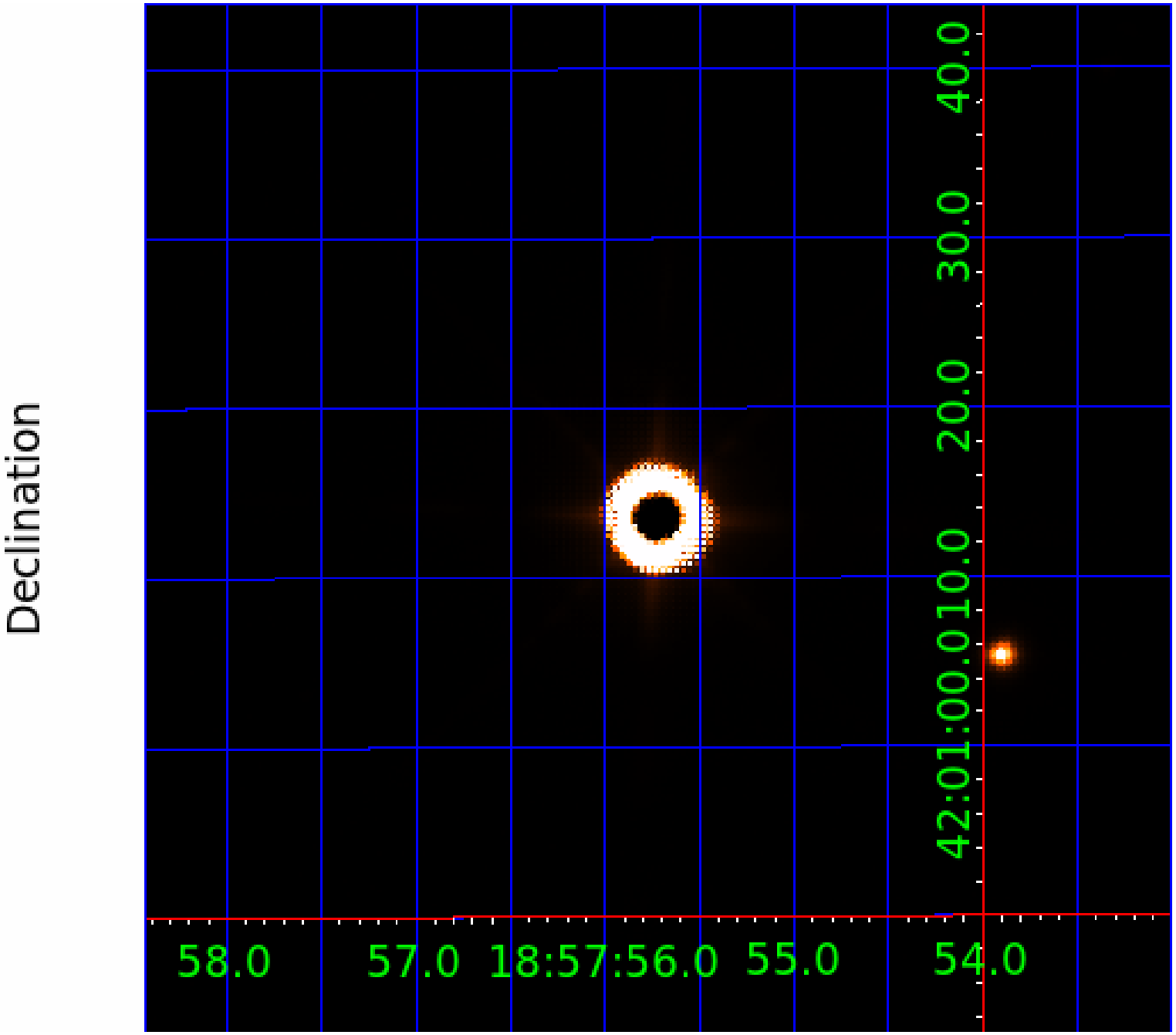






white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image